



# HipLink Software e-Book



**THE COMPREHENSIVE GUIDE  
to Selecting an Alerting System**

## HIPLINK SOFTWARE

**Technology Solutions with Peace of Mind**

**carahsoft**

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**THE COMPREHENSIVE GUIDE**  
to Selecting an Alerting System

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## 1. Reducing Response Times

In the world of first responders, time has always been of the essence. Responding quickly can make all the difference in saving lives, reducing injuries, and minimizing property damage. Much of the focus on reducing response time is placed on reducing the travel time interval to the scene. However, two critical elements of the overall response time are "alarm handling time" and "turnout time."

Each step of the process—from incident reporting to first alert, dispatch, and acknowledgment—can cost valuable time and can have detrimental impacts, such as:

- An overly-heavy reliance on the CAD dispatcher's manual efforts to activate emergency personnel via a multi-step process
- Unreliable communications and message integrity due to the use of the wrong or obsolete communication technology
- Inaccurate or ambiguous and slow delivery of critical information
- Missing or unclear incident information
- Limits of personnel to assimilate and retain verbal information while in emergency response mode

Adopting an alerting solution that is intelligently integrated into your communication center's CAD system and automates getting communications out to first responders is a top priority in improving response time. A good alerting solution will also automate tracking and reporting on turnout times, helping better identify opportunities for improvement or optimization. This feature and a reliable, modern alerting system with full redundancy can also improve a community's ISO fire rating score. Emergency communications systems are one of the four main criteria of an ISO fire rating score, and a better ISO rating indicates a better level of community protection by the fire department and lowers an area's homeowners' insurance premiums.

Beyond these features, the right alerting solution should deliver reliable alerts and utilize various alerting media and devices to meet your emergency personnel's varied roles, locations, and communication styles.

## What Makes Up Response Time?

1

### Alarm Handling Time

from initial receipt of alarm to location notification

2

### Turnout Time

from location notification by text and/or visual alerts to when a responding unit is en route

3

### Travel Time

from responding unit en route to arrival on scene

4

### Total Response Time

from alarm receipt at the primary public safety answering point (PSAP) to when the first emergency response unit is initiating action or intervening to control the incident

## 2. Leveraging Multiple Modes of Communication

Communication clarity and accuracy are crucial to helping police, fire, and EMS units understand the type of emergency they're responding to and where they are going. A lack of clear and thorough communication often results in call backs to the dispatch center with requests for information to be repeated. With older systems, the only information available is what the dispatcher reads over the radio. When personnel are moving fast, it's easy to misinterpret or not hear all spoken instructions about an emergency. Alerting solutions can efficiently and effectively mobilize staff for responding to an incident by controlling a wide array of alerting devices that present critical information to the appropriate individuals as quickly as possible in redundant configurations:

- **Automated alerts and announcements** that can be instantaneously conveyed to all responding parties via text or text-to-speech. Text alerts are clear and fast. Select a system that allows you to easily filter and modify automatic alerts without dispatch involvement and one that performs transformations in real time.
- **Both text and audible devices** should be options as your personnel have different communication and comprehension styles where one or more types of communication protocols are critical for message delivery. Further, one mode is a backup to the other should a device or carrier fail.
- **Two-way messaging** with the ability for acknowledgment with real-time communications the dispatcher has better visibility without the need for manual calls. A commander can confirm status without making a call. A mobile app can further ensure private and secure communications leveraging 2-way functionality.

### 3. Adopting a Flexible Deployment Architecture to Accommodate Growth

One size does not fit all. Your situation is unique, and so are the needs of your personnel. Your alerting system must balance several considerations, including cost, scalability, and failover capability. Modern alerting systems must be capable of being deployed and expanded upon in several unique ways.

The most flexible architectures enable you to utilize various alerting devices and transmission protocols. Deployment strategies can change as your implementation grows to support more locations, jurisdictions, and alerting options.

- **Scalable:** Once installed, the alerting solution will likely be in operation for many years, so you will want to keep the future in mind as you evaluate choices.
- **Modular:** The system you choose should be modular, allowing for reconfiguration and expansion as needs and budgets change—without requiring extensive changes or reinstalls. Choose the best and most cost-effective technology within your financial limitations.
- **Configurable:** Your system should be software-based, highly configurable, and be able to be tailored to meet your unique needs.

- **Flexible:** Even a very large organization may start by enabling a single location or a subset of a department before deploying more broadly across multiple departments or, they may begin with fewer alerting options and expand to more over time. A flexible deployment architecture can help ensure a streamlined initial project while enabling the implementation to scale to any size needed.
- **Off-the-Shelf:** Utilizing non-proprietary devices gives you the flexibility downstream to add new features and capabilities to the system. Off-the-shelf devices are also more readily and more quickly available, which in mission-critical environments, is imperative. It also means you are not locked into a single vendor.

One department might use several different types of alerting devices. Even if you're starting with a basic alerting solution implementation, you should have the flexibility to choose the best devices for your application, and know that as your device requirements change, your alerting solution will adapt and grow with you. Expect that the system you choose will support a broad range of non-proprietary devices from different manufacturers.

## 4. Leveraging Existing Systems and Devices to Minimize Costs

Does your alerting solution supplier have the expertise to engineer a system that fits your department? Can they craft a plan that leverages existing investments in communications infrastructure and location devices while expanding and modernizing over time?

It's essential to maximize the use of your existing infrastructure. Your existing CAD, radio, PA, phone, and systems support your day-to-day department processes. With the substantial time and money, you have spent analyzing, selecting, and implementing these systems, your new alerting solution should integrate without costly retooling.

For example, you might reduce the cost of your infrastructure by tying into existing equipment and deploying a combination of text alerts and displays.

Maximize your investment by choosing a solution that seamlessly integrates with existing CAD, PA, and other systems. Insist on standard, on-the-shelf in-alerting hardware devices that are easy to service and replace. Using nonproprietary equipment makes it easy to integrate into existing systems and makes purchasing and maintenance more cost-effective.

## 5. Prioritizing Staff Health

Occupational stress is inherent in emergency response. But at no time in the past has this been more acute for first responders, especially as the increase in arson, acts of domestic violence, terrorist acts, automobile accidents, airplane crashes, hurricanes, tornadoes, earthquakes, and pandemics will attest. The rigors of rescue and victim extrication are such that only the bravest need apply.

Other stresses on personnel are more subtle, such as the effect of receiving alerts — especially at night. Interrupted sleep and startling alarms take their toll immediately and later with the onset of fatigue due to sleep deprivation. Many aspects of a system can minimize stressors and target alerts so individuals get them only when it's appropriate or required.

## 6. Considering Remote Personnel

Not all first responders are at their home-base when an alert comes in. They may be out of range of routine dispatch communications, they may not have access to their primary device, or they may be volunteers or remote personnel.

The most up-to-date alerting solutions support text messaging, smartphone apps, email notifications, and pagers. Emergency alerts automatically delivered via these multiple devices ensure the appropriate first responders are activated irrespective of their location. Capabilities to look for include:

- **Emergency alerts** utilizing the same announcement that goes to all affected parties
- **Group message selections** facilitate communications according to rank, title, and unit, such as chiefs, hazmat, or dive team, or according to incident type

## 7. Building for High Reliability and Accessibility

Reliable communication is vital for people who put their lives on the line daily. Reliable alerting depends on crucial alerts reaching their destination. When a communications or device failure occurs, first responder personnel are unaware of it, and emergency calls go unanswered.

### Automated Self-Monitoring

Automated monitoring allows designated personnel to quickly determine equipment problems such as failed communication, downed lines, and backup power system operation.

Your system should have sophisticated self-monitoring that provides visual and audible notification and ties into email servers or text messaging for real-time notification of a network or alerting system malfunction. These alerts enable first responder personnel and the system vendor to proactively correct the problem, thus maximizing system uptime and reducing the chance of a missed call.

### Backup and Redundancy

Take a comprehensive redundant and "layered approach" to your alerting solution plans. Look for a system that provides:

- **Alerting over multiple communications paths** provides full redundancy should one communication path fail.
- **Redundant servers** that will operate in an automated failover mode, eliminating the need for manual failover actions.
- **Geographic redundancy** with support for multiple dispatch locations and the option for geographically separated backup servers with near-instantaneous switchover (automatically or manually)

Redundant phones, equipment, communication paths, and backup sites can take over for damaged parts of the network, ensuring uninterrupted communications.

## Software-Based System

Rather than selecting a system that is rigid in design and forces you to adapt to how it works, choose a flexible system installed by a vendor that can configure the system to your specific requirements and existing protocols. In addition to providing more flexibility to customize a solution to meet your unique needs, software-driven technology is more cost-effective to maintain than traditional hardware-based systems. Because they are digitally programmed, customers can make easy, on-the-go changes to the configuration.

### 8. Designing for Service First

Downtime is not an option. Look for alerting solutions with a service-friendly architecture and serviceability designed directly into the technology.

The alerting solution should also be designed for remote administration so that updates and fixes, such as changes to the translations of automated voice announcements, can be easily made and installed from a central location. This feature eliminates costly and time-consuming trips to organizations throughout the city or county for routine service calls.

### 9. Using a Standards-Based Approach

You need an alerting system to meet the ongoing challenges of CJIS compliance and FirstNet certification. In the interest of interoperability, dedicating your organization to an alerting system for all first responder personnel will improve operations and reduce costs.

Public safety organizations depend on mutual aid agreements with nearby communities and local, state, and federal agencies, which places critical importance on networks that can interoperate with other departments and jurisdictions. Communities recognize the benefits of sharing one system across multiple departments to share costs and ensure reliable and available communication when events require a joint response.

## 10. Partnering With an Experienced Vendor

The vendor you partner with is more important than any system component or feature. Look for a vendor who has a demonstrable attitude of service and proven experience supporting complex and vital systems. One who will do whatever it takes—from providing preventative maintenance and repair to supporting you whenever and wherever you need it. Ensuring your systems operate seamlessly 24/7 lets you focus on priority #1: protecting the lives and property of the communities you serve. Your chosen vendor should end up feeling like more than just a vendor, they should become your go-to partner.

In addition to proven experience, your vendor of choice should be financially stable. Longevity and experience are essential to ensure that your vendor has demonstrated they have adequate resources and staying power for the long haul. Look for a vendor who provides:

- A skilled, reliable, responsive team with deep client relationships, domain knowledge, and skills
- A time-tested approach, sustainable processes, and exceptional customer service
- Proven record of high-value support
- Fully equipped maintenance facilities
- Proven methodology for planning, implementation, testing, and customer training
- Support for proprietary and non-proprietary devices
- An intelligent approach and strategy to communication devices available
- Personnel who have direct industry experience
- A breadth of capabilities, including system integration, software development, security expertise, mapping, engineering, call center, and more
- A collaborative, consultative partnership with your agency

## Conclusion

The world of first response is not static. Public safety organizations continuously review and revise processes in response to community needs, organizational changes, new locations, compliance and interoperability requirements, and new technologies. Because an alerting system is a critical part of your overall response process, its implementation must be tailored to your department's needs, system requirements, schedule, and budget.

## Public Safety Alerting Solution Checklist

Whatever your objective—replacing or upgrading an existing system, expanding your alerting options, or building out a new alerting system—the factors discussed in this eBook are critical to your success. To review and implement a complete alerting solution, one that:

- Reduces response time
- Improves communications
- Adopts a flexible deployment architecture
- Leverages existing systems and devices
- Minimizes personnel stress levels
- Supports remote personnel
- Is built for high reliability and accessibility
- Is designed for service first
- Uses a standards-based approach
- Is supported by an experienced and trusted vendor

Innovative public safety departments recognize the strategic value of alerting solutions and are expanding early deployments to include broader capabilities. By following the ten critical success factors outlined here, your public safety organization will be well-positioned to integrate alerting solutions into its operations, reducing operating costs, improving the speed and efficiency of response, and enhancing the safety of responders.

## HipLink Alerting System

### Performance you can count on

- We work to solve challenges, so you can focus on protecting life, safety, and property
- Public Safety System that reduces stress on first responders
- Integrates and leverages existing systems & devices
- High system reliability through real-time monitoring & built-in redundancy
- Improved response times through streamlined dispatch communications & accurate incident alerting

## About HipLink Software

HipLink is a technology solutions partner with 25+ years of experience in the public safety industry that develops, implements, modernizes, and maintains life-critical solutions for public safety organizations and emergency medical services.

Seconds save lives. We understand the critical role technology plays in response times and make it our mission to implement solutions that empower you to handle life-critical situations quickly and safely. As your trusted partner, we tailor technology solutions to your organization and provide expertise, training, and around-the-clock support that you can count on. We work to solve challenges, so you can focus on protecting life, safety, and property.

Let's connect if you have questions about what to look for in an emergency alert management solution or partner. Our team of public safety industry veterans are ready and willing to help answer any questions and steer you in the right direction.

For more information, please visit [www.HipLink.com](http://www.HipLink.com)

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