



# Improve the efficiency and effectiveness of your first responders with mobility



## The challenges of manual accountability at the disaster site

In emergency situations, time is of the essence. To act quickly, scene commanders and first responders must have access to the right information at the right time — including a comprehensive view of all equipment, personnel, and victims on site. Such accountability is critical to the safety of civilians and first responders, and essential to ensuring all resources are used as effectively as possible throughout response efforts.

First response accountability has received considerable attention as government agencies look to strengthen overall disaster response and preparedness in the wake of natural disasters and terrorist attacks. For example, in the United States, federal, state and local agencies must now comply with the National Incident Management System (NIMS) which mandates visibility into available resources to best prepare for, respond to and recover from an incident — as well as efficient communications and information access during an incident.

However, with firefighters, police, rescue, Emergency Medical Services (EMS) and other first responders flooding the scene, keeping track of all assets, no matter where they are located, is no easy task. Site managers who must rely on a manual data collection system struggle for efficiency and accuracy in record maintenance. Bottlenecks occur as managers work to check-in arriving first responders with paper and pen, and teams scramble to locate critical equipment for a high priority incident. When every second counts, the paperwork burden and its associated productivity loss can translate into lost lives. Furthermore, with manual systems, critical information often resides on clipboards at the scene and is inaccessible to offsite command centers, evacuation sites, hospitals and other agencies.

## Improving first response accountability with mobility

Motorola mobility solutions can help automate first response accountability efforts, providing the information needed to dramatically improve response times and on-the-spot decision making. Our wide range of enterprise and industrial mobile computing devices are designed for mission critical first responder solutions — our handheld mobile computers to notebook computers and full size mobile workstations are designed with industry-leading rugged specifications, offering environmental sealing against the elements, military grade testing for impact and more. And with Motorola, you can count on technology that is second nature, so responders can focus on the mission — and not the technology.

## KEY BENEFITS

- Improves management of on-scene resources
- Improves inter-agency communication and coordination
- Ensures overall scene and personnel safety
- Increases response speed and effectiveness
- Helps cost-effectively meet NIMS compliance

# An overview of the technology

There are three key components involved in Motorola's first responder mobility solutions: the mobile devices, wireless networks and the mobile applications. Following is a brief overview of each:

## Mobile computers

Motorola offers a wide range of mobile computers designed to meet the needs of your applications:

- Rugged mobile computers built for all day outdoor use in the harshest environments as well as cost-effective and compact, durable PDA-style devices
- Support for up to four radios for true inside-outside wireless connectivity — WWAN, WLAN, WPAN and GPS
- Advanced data capture functionality, including integrated bar code scanning and magnetic strip reading for instant capture of information on driver's licenses and other ID cards, as well as image capture
- Integrated advanced voice functionality eliminates the need for mobile workers to carry two devices through a full range of voice capabilities, including walkie-talkie style communications and the ability to extend the desk phone number and functionality to the mobile device

## Wireless network connectivity

Motorola can provide the right wireless networking solution for your mission critical government application:

- Public WWAN network connectivity: Motorola mobile devices offer connectivity to public cellular networks, giving you the flexibility to choose the provider that best meets your coverage needs
- Private WWAN/WLAN network connectivity: Motorola's comprehensive wireless networking solutions enable the deployment of a private wide or local area Wi-Fi/mesh-based networks, providing complete control over field-based communications, including network volume, availability and uptime
- WPAN provides on the spot wireless connectivity to peripherals such as mobile printers and headsets
- GPS connectivity provides support for location-based applications

## Mobile applications

Our award-winning partner channel offers deep vertical industry expertise and best-in-class applications that have been tested and validated on Motorola platforms, providing:

- Rapid deployment
- Ease of use for rapid adoption
- Seamless integration with your existing business processes
- Easy integration with your existing IT infrastructure
- Faster return on investment

And since Motorola mobile devices are built on a common technology platform, the applications you invest in today can be easily migrated to the Motorola mobile devices of tomorrow. You can easily support changing business needs without the substantial costs associated with new application development — future proofing your first responder solution and providing superior investment protection.

With a Motorola mobile computer in the hands of your responders, you bring real-time mobile voice and data to the point of activity. A suite of advanced applications — from video sharing and text messaging to task distribution and victim tracking — delivers actionable, accurate information to increase reaction time and agility under the high pressure of a first response situation. Regardless of what type of information is collected, data can be transmitted instantly to a centralized system, providing offsite command centers with the real-time visibility required to improve response to changing conditions as well as strengthen inter-agency coordination.

As a result, government agencies are better equipped to cost-effectively meet government mandates — without burdening their first responders with time-consuming processes and paperwork. And emergency workers have the tools and information needed to enable better decisions — and better outcomes.

### Create an electronic inventory for better asset accountability and resource deployment

A Motorola mobile computer equipped with bar code scanning and image capture capabilities enables a rapid and highly accurate inventory of all assets — in minutes instead of hours. The need to record information on a clipboard and subsequently enter that data into a computer is replaced by the quick scan of a bar code. And whether you are taking inventory in the station or on site at an emergency,

Motorola's bar code scanning technology enables the easy capture of virtually any bar code. Omnidirectional scanning eliminates the need to precisely align the scanner with the bar code. Sophisticated algorithms enable the accurate capture of even dirty or damaged labels. And Motorola offers mobile computers that can read 1D and 2D bar codes as well as RFID tags and direct part marks, enabling agencies to purchase a single cost-effective device to read a variety of data types.

Now, the location of vehicles, rescue gear and other assets is always available in real time — regardless of where they are located. Armed with this real-time view of all resources, incident managers can ensure that assets from all responding agencies are deployed as effectively possible. And in the event specific assets are required for higher-level emergency situations, real-time visibility enables instant location and redeployment, eliminating valuable time that is often wasted tracking down a needed asset.

### Track victims from disaster scene to point of care

Without an effective communication link, nearby hospitals are often the last to know the details of an incident until ambulances pull up to the emergency room door. Now, a Motorola mobility solution can enable the instant transmission of critical patient data to the hospital and other offsite personnel in real time, allowing healthcare workers to be as prepared as possible for incoming emergencies.



With a Motorola mobile device in hand, first responders have better information at their fingertips for better split-second decision making — and better outcomes. Whether your first responders need a full-size workstation, a notebook computer or a small handheld device, you can count on second nature technology to keep first responders focused on the task at hand, the power to run the most demanding applications, rugged specifications for reliable operation in virtually any environmental condition and seamless inside-outside mobility for a reliable connection to mission critical data.

As rescue workers triage the scene and classify victims, they can record key information about patients, including condition status, injury specifics, and even the destination hospital. This patient data can be wirelessly transmitted to an offsite command center and neighboring hospitals — giving medical centers the advance notice needed to pool the necessary resources and locate specialized equipment to effectively and efficiently treat incoming patients.

Real-time data visibility provides the command center with the details needed to evaluate the scene and properly allocate resources. On scene, coordinators can view available beds at all surrounding hospitals to ensure proper dispatching of patients. And the ability to electronically and automatically capture medical data on scene enables first responders to focus on assisting victims — instead of collecting information.

#### **Ensure first responder accountability across all agencies**

On site at an incident, mobility solutions help rapidly screen, check-in and track first responders throughout the incident. With a quick scan of an identification tag or other forms of ID, a site coordinator can quickly confirm a rescue worker's identification and permission level — speeding the check-in process, improving overall site safety by eliminating unauthorized access and allowing first responders to reach the incident scene more rapidly. A complete electronic record documents when EMS, firefighters, law enforcement, volunteers and others enter and exit an incident scene, providing efficient NIMS compliance without creating an additional administrative burden for coordinators. And real-time data transmission and access greatly improve inter-agency coordination — critical to improving response to emergency situations that require multiple agencies.

#### **Issue incident-specific ID badges at the scene**

At the disaster scene, it is critical to establish site security and set up authorization levels. With a Motorola mobile computer in hand, command managers can see who has been dispatched to the incident and can print incident-specific badges right on site via a mobile printer. As responders arrive on the scene, managers are ready to rapidly issue site-specific identification badges — complete with site permissions, an expiration date and a bar code for electronic tracking throughout the incident. As a result, all responders can be tracked and managed throughout the incident regardless of agency affiliation, improving the safety of responders as well as providing visibility of their whereabouts in the event they are required at another incident.

#### **Minimize delays in processing survivors and evacuees**

Motorola's mobile first responder solutions ultimately help speed the identification and processing of disaster victims through improved tracking capabilities. Rescue workers can use a mobile computer to record, photograph, and tag all evacuees onsite. With a bar-coded wristband or ID tag, evacuees can be tracked throughout the entire process — as they leave the scene, board a bus, and arrive at an evacuation center. The elimination of paper forms enables the rapid logging of information that avoids the common bottleneck associated with manual administrative procedures, allowing rescue workers to process more survivors in less time.

Evacuee data can be wirelessly uploaded to a centralized system that is available to any authorized user on the ground, at a remote command center or evacuation site. Equipped with a mobile computer, scene commanders and government officials can instantly access current and accurate information — even perform a quick search for specific individuals

— in order to efficiently reunite families and keep the press and public up to date with the most accurate information.

#### **Improve scene visibility with video sharing**

With Motorola mobility solutions, the ability to view visual intelligence — including live and archived video from surveillance cameras — is no longer limited to the command center.

Responding personnel can view video from any camera on scene right in the palm of their hand, providing the information needed to more effectively respond to the situation. The additional information enables better planning and better decision making. For example, while on route to a scene, responders can view live images of the area for a clearer understanding of the situation and how to best secure the area. And while on site, personnel can monitor different sections of a disaster scene — whether it's a multi-story building, stadium, campus or other facility — providing the real-time information needed to ensure the right efforts are being made in the right place at the right time.

#### **Depend on Motorola for your accountability needs**

When you want to mobilize your first responder applications, put your trust in the industry leader — Motorola. With more than 30 years experience in mobile computing and data collection and over 70 years in wireless communication solutions, Motorola is the ideal partner to help you improve response time, agility and coordination during emergencies and large-scale disasters.

Our first response solutions are built on easy-to-use technology that is second nature, so first responders are free to focus on the mission critical task of saving lives — instead of technology. Seamless inside outside connectivity ensures the delivery of information when and where it is needed — multiple radios enable the same device to connect to a wide area network when workers are outside the four walls, and seamlessly switch to an available wireless LAN upon

return to the office, enabling the delivery of more cost-effective in-building voice and data services.

Our wide range of mobile computing devices is designed to handle the rigors of all day every day use in the field — from durable or rugged PDA-style handhelds with integrated voice and data devices to vehicle-mount workstations and notebook computers. And our devices aren't just tough on the outside — they're tough on the inside, packed with processing power and Motorola-only features that provide outstanding application performance and pervasive wireless connectivity.

With Motorola, you get the strength of an industry leader and the power of tested and proven end-to-end solutions — including mobile devices, wireless networks, applications, management solutions and a full range of lifecycle services. And our management solutions bring a new level of simplicity to the management of mobility solutions, enabling you to easily stage, update, monitor and troubleshoot your mobile devices in the field from a single centralized location. Our planning services can help ensure your first responder solution is designed from the ground up for maximum success, factoring in ease-of-use and user adoption rates as well as wireless connectivity requirements. Our world-class business partners provide best-in-class applications that integrate easily with the existing workflows of your agency to minimize disruption of day-to-day business procedures. And while reliability is built into our devices, in the crucial world of first response, even a tiny amount of downtime is unacceptable. Our award-winning post-deployment support services minimize downtime, helping to keep your first responder solution up and running at peak performance every minute of every day.

For more information on how Motorola first responder applications can help you improve efficiency and inter-agency coordination, please visit us on the web at [www.motorola.com/governmentandenterprise](http://www.motorola.com/governmentandenterprise)



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