Improving Public Safety with Wireless Video

Better Information. Better Decisions. Better Outcomes.

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Ensuring Public Safety in High Crime Areas

A motion sensor triggers a video camera in a high crime area. Miles away in a central command center, live video from the camera is displayed automatically on a monitor. It shows an armed assailant robbing a citizen at gunpoint.

The dispatcher on duty immediately sends patrol cars and transmits video of the suspect over a wireless broadband network to mobile computers. As patrol cars converge, an officer's in-vehicle video camera records the suspect fleeing. With a single click, the officer shares this streaming video with other officers acting as backup, and with supervisors who continue to assess the situation in real-time.

The suspect is soon apprehended. Responding officers are unharmed, and the videos are later used in court to convict the suspect.

The changing technology of public safety

Wireless video solutions are transforming the way governments and public safety agencies are protecting their communities, as well as their own personnel.

Wireless technology offers remote monitoring, mobile video and high-speed transmission. By bringing video to more places, these solutions extend the reach of existing personnel, allowing them to better monitor high crime areas, out of the way locations, high traffic intersections, even special events.

As a result, wireless video systems are helping public safety professionals become even more effective in saving lives, reducing crime, and keeping neighborhoods safe.

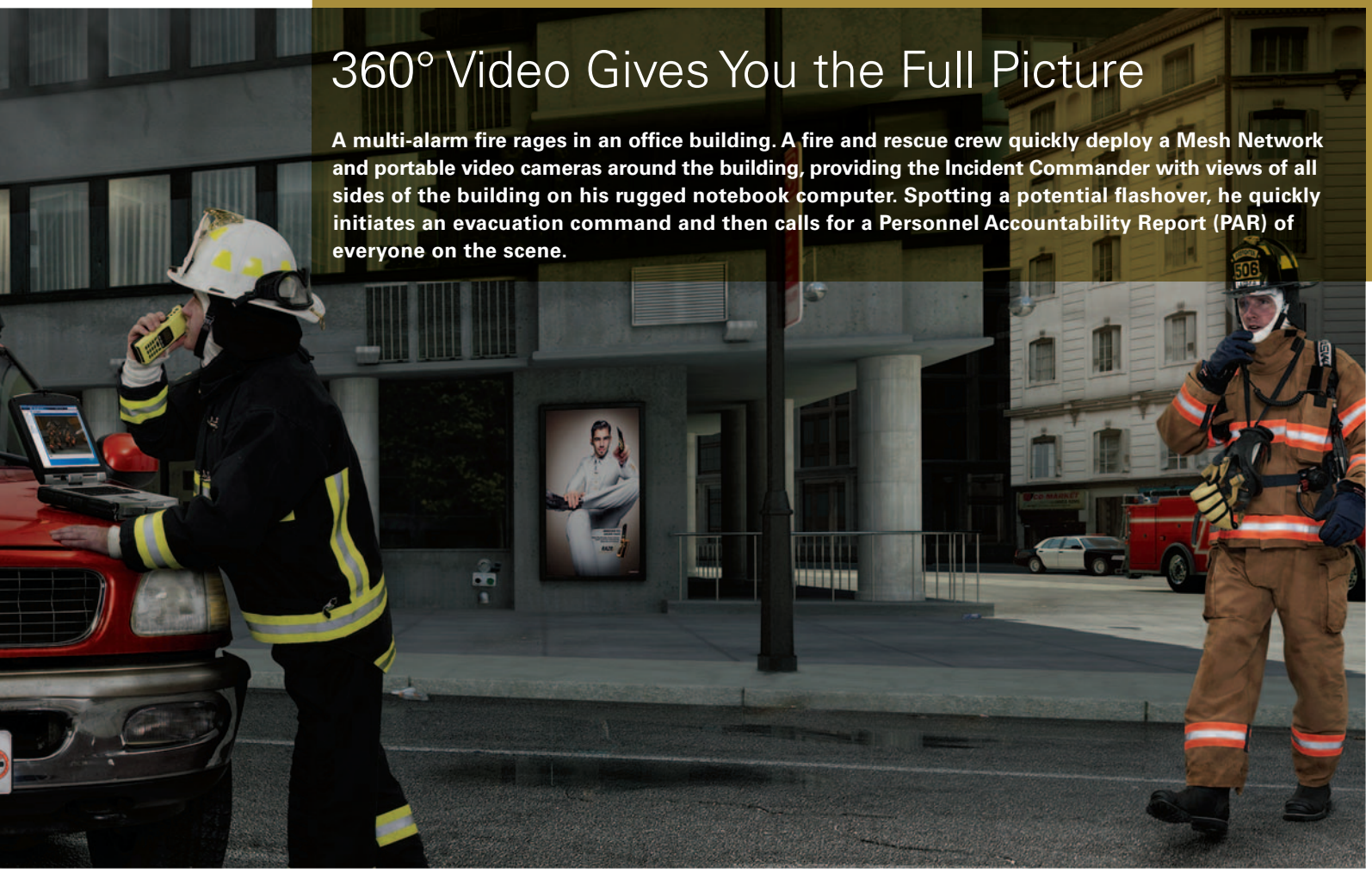
Capture: Eyes on the street

The essence of a wireless video solution is speed and mobility. It's being able to set up an entire solution quickly and efficiently, for any purpose.

The most visible part of a wireless solution consists of digital cameras connected by a broadband network. Serving as the "eyes" of a solution, cameras can be deployed in three basic ways:

- **Fixed** – Cameras temporarily or permanently attached to buildings, traffic fixtures, light poles or similar objects, allowing you to monitor select areas around the clock.
- **Mobile** – Mounted in or on vehicles such as fire trucks, patrol cars or public transportation such as buses, subway cars or trains.
- **Portable** – Similar to fixed cameras—though not attached to a fixed object—portable cameras are deployed on tripods and run on solar power or batteries. They're made to be set up and taken down quickly for emergencies and special events such as parades or big games.

Once captured, an image is transmitted via a wireless broadband network. As neither the cameras nor broadband network are tethered to a wired infrastructure, wireless video solutions can be significantly more cost effective than older, wired CCTV systems. Simplicity makes them flexible and scalable, yet less expensive to plan, deploy, and manage.



360° Video Gives You the Full Picture

A multi-alarm fire rages in an office building. A fire and rescue crew quickly deploy a Mesh Network and portable video cameras around the building, providing the Incident Commander with views of all sides of the building on his rugged notebook computer. Spotting a potential flashover, he quickly initiates an evacuation command and then calls for a Personnel Accountability Report (PAR) of everyone on the scene.

Analytics: Automated intelligence

A large wireless video solution may include hundreds of cameras, each streaming video and all monitored by just a few people. How do they keep up?

The latest video solutions include sophisticated analytics software that can methodically monitor an area and alert personnel on the street or in a control center to potential problems.

Video analytics can reside at the camera, in a vehicle or at the command center. They look for common things that a human might miss. Maybe it's motion in an area where there shouldn't be any, or several people suddenly gathering in a suspicious manner. Based on predefined parameters, analytics can detect:

- perimeter violations
- excessive crowd buildups
- unattended baggage
- traffic accidents
- stolen vehicles
- other potentially dangerous or disruptive situations.

In effect, video analytics act as a force multiplier, allowing a few trained staff to manage hundreds of cameras, making them more effective and accurate in the process.

Ease of Installation

A wireless video system can typically be set-up in days, as opposed to weeks, months or longer for systems requiring in-ground cable or fiber. You not only save time, but eliminate the cost of tearing up and replacing streets, floors or other infrastructure to lay cable.

Share: Information where it's needed most

In public safety, receiving vital information a few seconds sooner can be the difference between a safe or deadly outcome. Collaboration, whether interdepartmental or multi-agency, is often the key.

To enhance this collaboration, Motorola's video sharing applications not only work hand in glove with a variety of wireless broadband networks, but they provide video interoperability between disparate systems such as analog closed-circuit television (CCTV), IP based H.264, IP based MPEG4, and other digital formats.

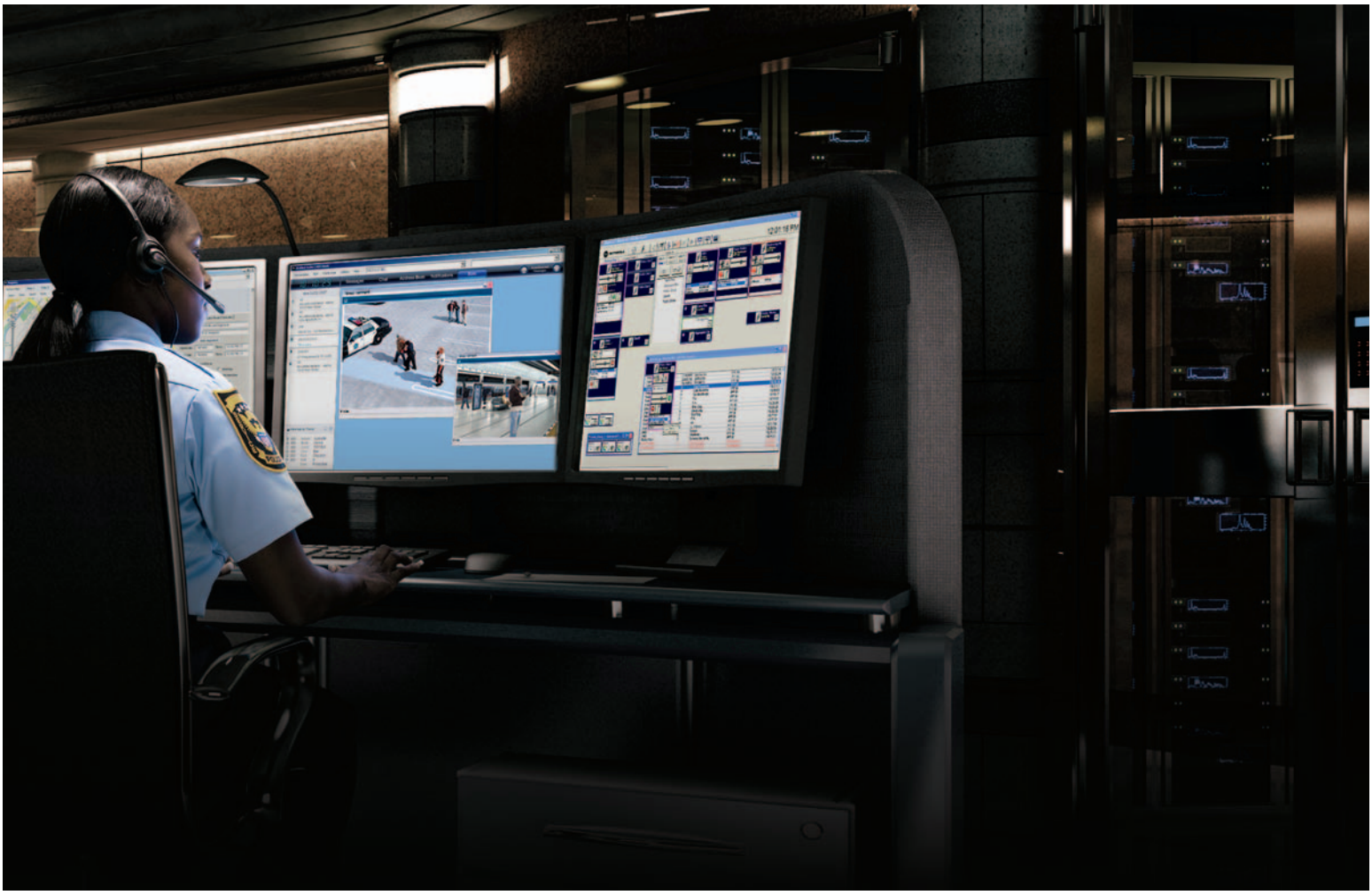
Motorola's wireless video solutions get vital information into the hands of those who need it most. An officer using a laptop in a squad car, an incident commander in a mobile command center, or someone carrying a handheld computer while on foot can all see the same video at the same time.

If there is a situation, personnel en route can assess it and plan their approach before they arrive. If shots have been exchanged, a fire has broken out, or an accident with injuries occurs, first responders can get a real-time visual of the scene or even the perpetrator.

Once at the scene, responders can send live video from their vehicle back to the command center to get another view of the incident. In a crisis situation, the ability to stream video back and forth from the command center to a mobile unit or personnel on the street equips everyone to make better decisions and achieve safer outcomes.

Seamless Security for Managing Crowds

A political figure on the campaign trail decides at the last minute to visit a local college campus. A crowd forms and some attendees become unruly. As the event unfolds, wireless cameras set up just days before and strategically placed and operated from numerous vantage points augment the pre-existing campus video systems. All of these disparate video systems are integrated, permitting campus security along with public safety officers and agents from state and federal law enforcement agencies to monitor real-time video that will help them secure the venue.



Manage & Store: The efficient back office

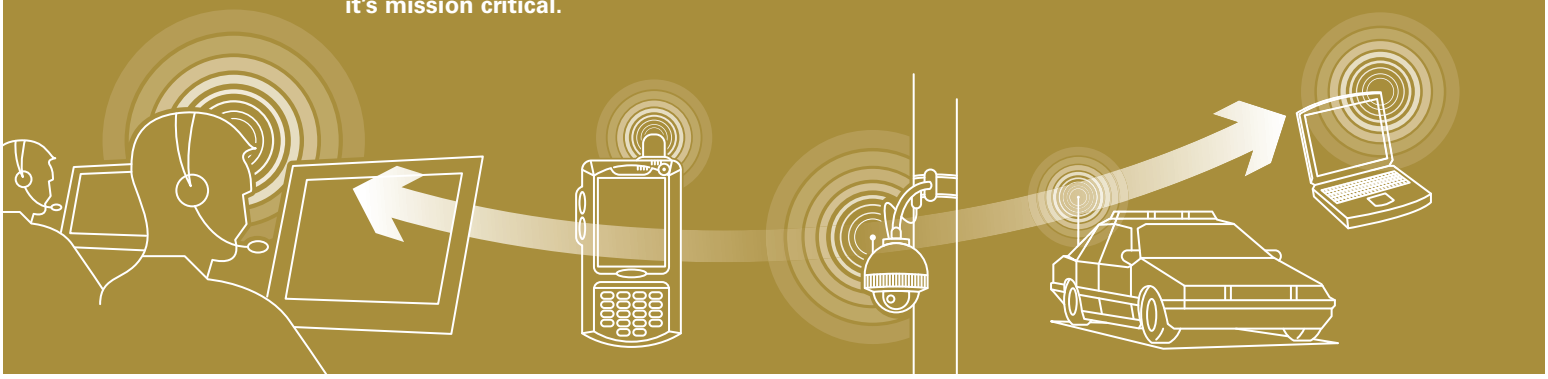
Modern digital video solutions can directly link cameras from disparate systems such as schools, banks or malls to public safety video networks. This allows you to leverage and expand upon existing camera networks, and bring all feeds into one cohesive and manageable view.

Searching digital video is easier and faster as well. Instead of sorting through hundreds, perhaps thousands of videotapes, you can locate and access specific footage with just a few keystrokes. Digital footage is also time- and date-coded, enabling quick retrieval for investigation, prosecution and training.

Management efficiency can be further improved by "tagging" digital video. Prespecified meta-data tags identify things such as shapes, colors, or the number of people in view, making it easy to search for specific data after the fact. You can search for events that may not have triggered an alarm, but turn out to be of interest later. For example, locating footage of all blue cars that drove down a city block between 1:00 and 2:00 am last Tuesday.

Unlike tape, digital video does not deteriorate with age or repeated playback and duplication. Evidence can be preserved longer and in better condition, taking up much less storage space than tapes. Overall, digital-quality video tends to speed trials, increase convictions, reduce frivolous lawsuits, and simplify incident review.

Wireless video surveillance networks are evolving and improving rapidly. Public safety professionals increasingly rely on video, and view it just as they do voice communications: it's mission critical.



Count on our experience.

For nearly 80 years, Motorola has been recognized as the leading provider of public safety wireless communications systems, networks, devices and services. We are committed to bringing public safety into the age of video and advanced networks. We design our technology to be second nature, enabling seamless connectivity and placing real-time information directly in the hands of users who need it most.

Our MOTOA4 portfolio of mission critical solutions, includes a strong network of strategic partners, and offers a "one-stop shop" that innovatively combines design, integration and hardware. We're fully prepared to help public safety agencies confidently take the next step in mission critical communications, beyond the basics, to the most reliable and innovative wireless solutions that help save lives and protect communities.

To learn more—and actually see in action—how Motorola's portfolio can help government and public safety develop and deploy intelligent wireless video solutions, visit us at www.motorola.com/secondnature.

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