



The Complete Guide to Mobile Video Solutions for Fire and EMS Fleets

Mobile video solutions are becoming more commonplace for first responders. Working in high-intensity environments around emergency vehicles requires a heightened awareness of surrounding areas. Fire departments and EMS service providers need to ensure their workers are following proper procedures, making the accident site a safe place for their employees and others around them.

Likewise, the roads are littered with distracted and negligent drivers, so having cameras capturing the journey tells the whole story, exonerating your drivers from false claims.



What is a Mobile Video Solution?

Simply put, a mobile video solution is a set of cameras and DVRs (digital video recorders) implemented to record around moving objects. Side, rear and forward-facing cameras on a vehicle are examples of a mobile video solution. This differs from security cameras, which are stationary or only record a specific area.

Body-worn cameras, typically mounted on the firefighter's upper chest or helmet, are designed to closely replicate the firefighter's point of view.

Forward-facing Cameras Record the Drive

Forward-facing cameras, or dash cameras, record what the driver sees. Additionally, some forward-facing cameras also record in the cab of the truck to record what the driver is doing.

In-cab cameras paired with forward-facing cameras tell a complete story. If there was an incident where a fire truck or emergency vehicle driver had to swerve to avoid hitting another vehicle, both cameras will tell you what the driver saw and what the driver was doing leading up to the incident.



Side Cameras Help Drivers Navigate Congested Areas

Side cameras are helpful when drivers need to operate in tight areas and with changing lanes on multi-lane roads. A monitor in the cab can be configured to automatically display the side cameras when needed. Generally attached near the cab of the truck by the side mirrors, the driver can get a clear view of their blind spots on either side.

Rear Cameras Help Avoid Accidents

Just like with side cameras, a monitor in the cab of the truck can automatically display the blind spot behind the vehicle when it is in reverse. For those hard-to-reach areas on fire trucks, wireless cameras offer the same 1080p high-definition view without the need to hardwire down the entire truck. With all cameras, continuous recording can be set up to record as soon as the ignition switch is on and stay on for a set number of minutes after the ignition is off, meaning you won't miss a crucial event.



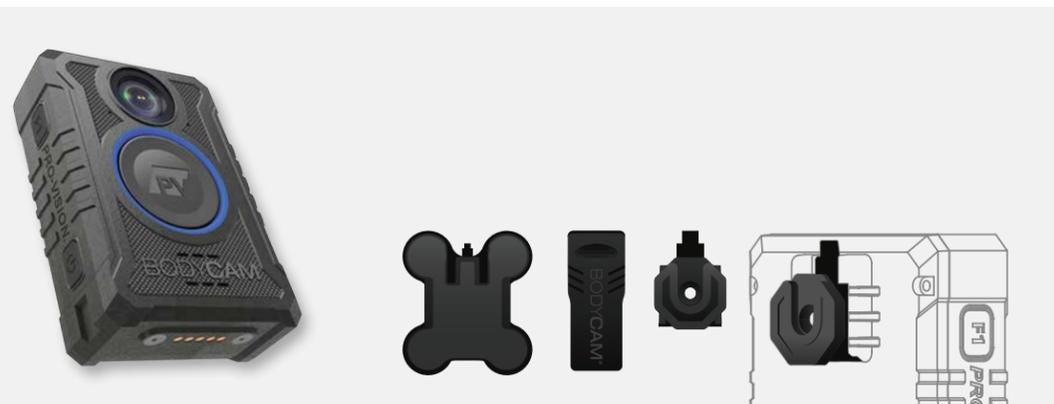


Interior Cameras Monitor Patients

For ambulances, an interior camera in the patient bay can monitor patient behavior. Protect your organization from false patient accusations and document evidence of unruly patient behavior. Likewise, be certain EMTs are following procedures and patients are receiving proper medical care.

Body-worn Cameras Document Evidence for Code Enforcement

Body-worn cameras can be used by firefighters to document evidence for code enforcement and inspections, as well as aid in documenting fire code violations and refuting any sort of dispute. Multiple firefighters wearing body cameras provides many different angles of the scene to tell a complete story.



Why Consider Mobile Video Solution?

There are several reasons for considering a mobile video solution for your fire and emergency vehicles.

Safety

The biggest reason to implement a mobile video solution is to keep everyone safe, including drivers and those around the drivers. [In 2020](#), an estimated 15,675 fire department vehicles were involved in traffic accidents, which resulted in 550 firefighter injuries and seven fatalities. Firetruck accidents are the second-leading cause of death for on-duty firefighters behind stress and overexertion.

Over a 20-year period, [the National Highway Traffic Safety Administration](#) found, on average, there were 1,500 ambulance accidents each year over the span. These accidents accounted for an average of 2,600 injured persons per year. In injury accidents, 54% of those injured were occupants of the other vehicle, 29% were ambulance passengers and 17% were ambulance drivers. There were 29 fatal ambulance accidents on average, resulting in 33 fatalities each year.

Of the fatalities, 63% were occupants of a passenger vehicle and 25% were in the ambulance (21% were passengers in the ambulance and 4% were ambulance drivers). The remaining 12% were categorized as nonoccupants, including pedestrians and cyclists.

Having side and rear cameras helps drivers navigate congested areas and reduces accidents, thus reducing downtime to make repairs and keeping your fleet running at maximum efficiency.



What Features Does a Mobile Video Solution Offer?

Whether your mobile video solution just includes vehicle cameras or also includes body-worn cameras, there are several features to consider.

Field of View

The field of view is an important factor in determining which camera to purchase. The bigger the field of view, the more activity that can be recorded. Most mobile video cameras provide anywhere from 110- to 170-degree field of view.

In regard to body cameras, where it is located will determine the video that is captured. Place the camera too low on the chest, and you could be recording the ground and missing the action. It is recommended to place the camera on the outside of a breast pocket to offer the best view. Pro-Vision offers several mounting options, including a magnet mount, garment clip, epaulette mount and more. Most body-worn cameras provide anywhere from 95- to 170-degree field of view.

Exonerate Drivers

When driving at high speeds on freeways, accidents can happen in an instant. It can be difficult for drivers to remember the incident exactly how it happened. However, with 360° coverage surrounding your vehicles, you will have video evidence as to how any accident happened. Video solutions protect your drivers from false claims and save you money on unnecessary litigation costs.

Tell the Whole Story

Everyone wants to know the truth, and mobile video solutions provide that. With multiple camera angles and cameras focused on the road and drivers, you can get all the details should an incident occur.

Coach/Train Personnel

Recorded footage is great for training new employees or revisiting safety procedures with current employees. Ensure proper protocols are being followed and correct unsafe driver behavior with real-world lessons. Additionally, body camera footage can be reviewed to discuss what went right, as well as areas for improvement.





Sonar and Sensors

In addition to a visual view with an in-cab monitor, sonars and sensors located at the rear of vehicles can be added to give drivers audio cues when an object is too close. Danger areas can be configured to alert drivers from as far as 17 feet.

Data Management

Pro-Vision offers an optional video management program, SecuraMax, which is a CJIS-compliant solution that simplifies the data management process and saves time. SecuraMax allows you to request video, blur faces automatically and share footage with individuals either inside or outside your organization.

Pre- and Post-event Recording

Pro-Vision's mobile video solutions ensure you won't miss a crucial detail. With pre- and post-event recording, you can retain the footage captured before and after an event. This is helpful if you don't have the hard drive space to be continuously recording and can't begin recording before an incident or forget to turn it on after an incident.

Automatic Triggers

Automatically record key events without worrying about them being recorded over when a DVR runs out of space. Maneuvers such as a hard brake, stop or turn are automatically recorded and will remain on the DVR to be reviewed. Additionally, an event marker button can be placed in the cab so the driver can manually mark events that don't fall under the automatic triggers.

Durability

Exterior and body-worn cameras are exposed to harsh environments, including rain, snow, dirt and mud. Pro-Vision cameras are IP69K rated to perform in these conditions and feature 17.3G shock ratings to withstand rough, bumpy roads and job sites. The onboard DVRs also feature solid-state hard drives. Unlike hard disk drives, SSDs feature no moving parts or the mechanical failures that come with them, making them perfect for fire and emergency vehicles.



Enhanced Video Stability

Because the body-worn camera is attached to a mobile person, the field of view is constantly moving. And if a firefighter is battling a fire or attempting to rescue somebody, it can be hard to see what is happening. Pro-Vision's Bodycam® 4 body-worn camera features electronic image stabilization technology, which substantially reduces erratic movement in your videos.



Proximity Activation

Proximity Activation allows body cameras to be automatically activated when within a 30-foot range of another body camera, which helps those who may have forgotten to turn on their body camera and keeps the focus on the situation at hand. Sometimes a situation escalates quickly, and the last thing a firefighter needs to worry about in a life-or-death situation is whether their body camera is on.

RFID Technology

Depending on funding, purchasing a body camera for every single firefighter may not be fiscally possible.

Bodycam 4 features RFID Login, which allows body cameras to be easily assigned to firefighters with a scan. Just pick a camera, scan and you're ready to begin. Plus, there's no need to designate a certain camera for each firefighter, as the RFID Login allows any firefighter to swap cameras from shift to shift.



What Questions Should I Ask When Considering a Mobile Video Solution?

Now that you've got a good understanding of what a mobile video solution is and why it would be beneficial to your organization, you've probably got a lot of questions.

Every organization's wants, needs and capabilities will be different, but every mobile video solution can be customized to work for you.

Some key questions to ask are:

- What type of warranty comes with the products?
- Can the solution be upgraded should you need to add more coverage later?
- Is extensive training needed to learn how to use the solution?
- What type of training is included?
- How do I keep software up to date?
- How do I access the video footage?
- What happens when the DVR runs out of space?
- Does it matter what operating system (Windows, Mac, etc.) I use when accessing videos?
- Are there any monthly costs associated with a mobile video solution?
- Is it a one-size-fits-all type of solution or is there a variety of options that are selected to fit my unique needs?
- Where and how exactly are the cameras going to be mounted on the vehicles and what will the views look like?
- Who is handling the installation & implementation process?
- Is the system integrable to other programs and ecosystems?
- Does the system utilize an open API architecture?



DVR Out of Space

When there is no more free space left on the DVR, it begins recording over the earliest recorded footage. However, automatically triggered events or events marked with an event marker button will never be recorded over.

Operating System

Pro-Vision's equipment only works on Windows operating systems.

Monthly Fees

Should you decide you want to host your video footage on our cloud, there would be a monthly fee to store and keep that data secure. Otherwise, there are no other monthly fees.

Warranty/Upgrade

Most Pro-Vision cameras and products come with a 5-year warranty, and more cameras/DVRs can easily be added should you decide you want to expand your coverage later.

Training/Software Updates

Extensive training is not needed to operate the solution, but should you need assistance, Pro-Vision's support team is just a phone call or email away. Your installation technician will configure your mobile video solution to your desired settings and answer any questions you have about using the system.

Pro-Vision's support page offers firmware updates to make sure your equipment is running smoothly.

Accessing Video Footage

To access video footage from Pro-Vision cameras and DVRs, you use the PV Player program to submit a video request. The footage is sorted by date and camera. You could also hook up an SD card to your computer if you don't want the footage to be on a network or the cloud.



Where Are Cameras Mounted?

Dash cams generally are mounted on the windshield inside the vehicle, side cameras generally are mounted on exterior body panel near the side view mirrors and rear cameras generally are mounted behind the vehicle, either on the bumper or on top of the vehicle. Of course, depending on the vehicle and your goals, the location of these mounts could change.

One-size-fits-all

Every mobile video solution can be customized to fit your needs. Even if you've got an out-of-the-box idea for how you want your company to utilize a mobile video solution, we will work with you to determine the best way to accomplish your goals.

Installation Process

Pro-Vision has a national team of installation experts that will set up your system and configure system settings so when installation is complete, you're ready to go.

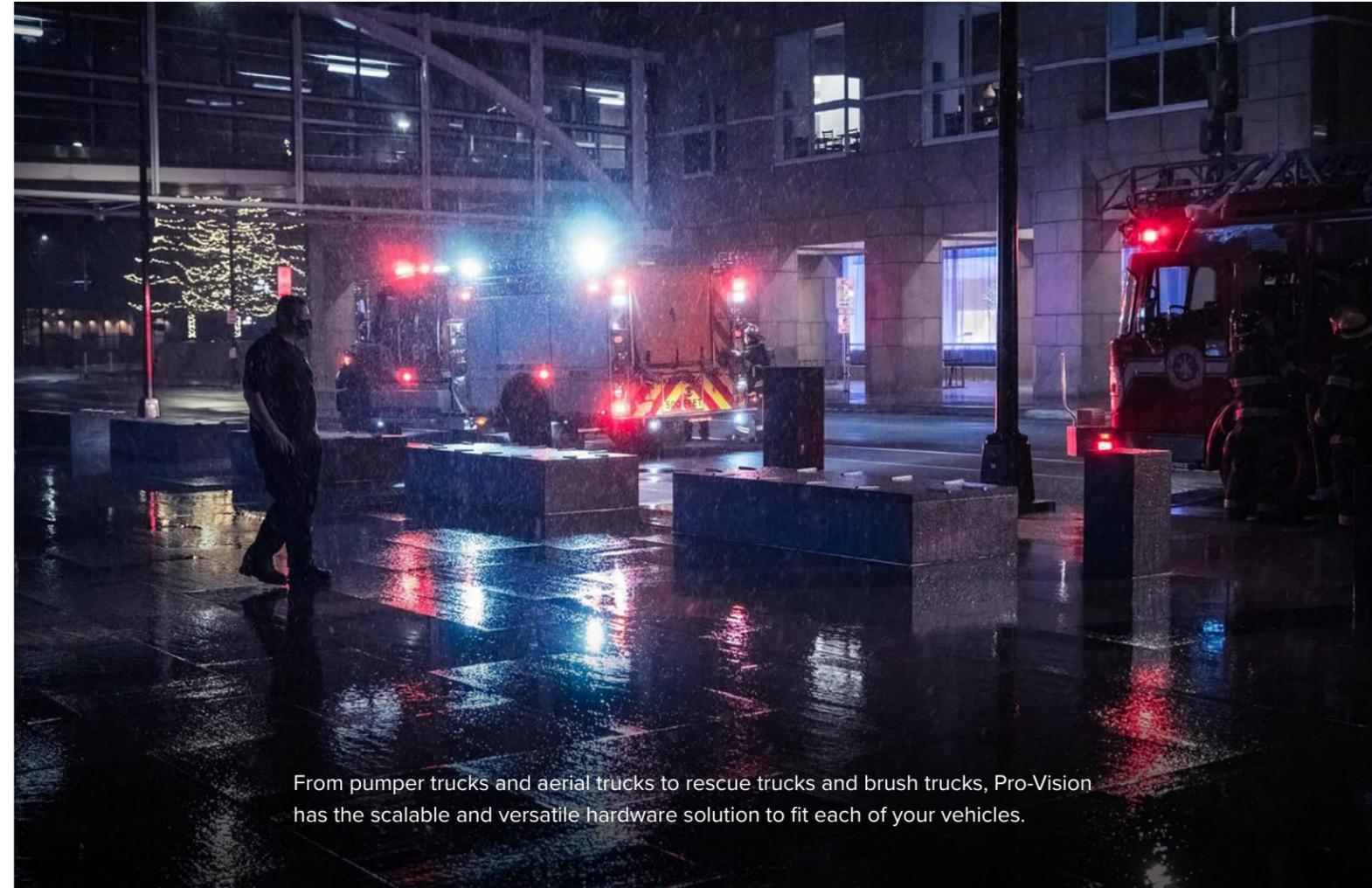
Ecosystem Integration

Pro-Vision's system can be integrated with other programs and mobile video solutions. For example, if you have a dash camera but are looking to add side and rear cameras, Pro-Vision's hardware will work with your old hardware for a complete view of your vehicle.

API Utilization

If you were previously working with a telematics company to obtain vehicle tracking data, Pro-Vision's API (application programming interface) allows you to seamlessly integrate the mobile video solution into a telematics company's back-end dashboard.

Do you have more questions that we haven't covered here or in our other industry-specific articles? Contact a sales representative to help get your questions answered and find a mobile video solution that fits you.



From pumper trucks and aerial trucks to rescue trucks and brush trucks, Pro-Vision has the scalable and versatile hardware solution to fit each of your vehicles.

About Pro-Vision

Founded in 2003, Pro-Vision is a leading video technology solutions provider trusted by thousands of organizations in 58 countries. Pro-Vision solutions include vehicle video recording systems, body-worn cameras, data management and cloud-based storage solutions. Pro-Vision's transit, law enforcement and commercial partners utilize these solutions to enhance safety, increase productivity and protect critical assets.



PRO-VISION VIDEO SYSTEMS

8625 Byron Commerce Dr. SW • Byron Center, MI 49315 • USA
p: 616.583.1520 • marketing@provisionusa.com

Learn more at provisionusa.com