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The Complete Guide to Mobile Video Solutions for the Public Transit Industry

A mass transit driver has one primary goal: Transport passengers to and from their destinations safely. It can be a difficult task when distracted and/or negligent motorists make up much of the day-to-day traffic.

A mobile video solution helps transportation directors keep their passengers safe by exonerating drivers and observing behavior.

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. Mass transit setups generally include interior cameras, as well as exterior side, rear, forward-facing and stop-arm cameras.

The cameras on the exterior give drivers a complete 360° view of their vehicles. With an optional monitor, drivers can get a view behind their buses when reversing and views of each side when needed. Interior cameras are not shown on the driver's monitor but are recording and can be referenced should an incident occur.

What is Part of Mobile Video Solution for Public Bus?

A camera configuration for a mass transit vehicle slightly varies from a configuration used for a school bus, namely because school buses feature stop arms.

WDR Camera:
Capture Footage in Low Light

A wide dynamic range (WDR) camera captures all the important details no matter how dark the surroundings are. WDR cameras feature a light image processor and a dark image processor, and by combining the two processors, they produce a clear, high-quality video or image by automatically brightening the dark areas and darkening the light areas.

Pro-Vision's AHD Forward-Facing Camera with Wide Dynamic Range is useful when mass transit vehicles are traveling at night. After the sun goes down, any footage a normal dash camera records will be difficult to make out, but a WDR camera will automatically brighten up the dark areas for a clear picture.
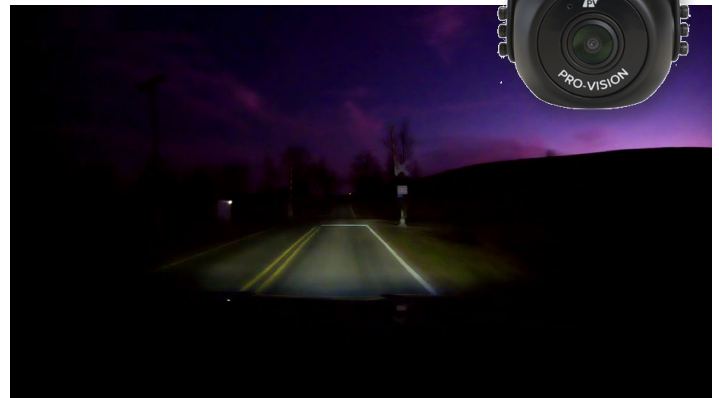
Ultra Wide Angle Low-Profile Camera: Record a Large Area

Because of the confined nature of many mass transit vehicles, low-profile cameras often are the choice to capture the interior. Sometimes, these low-profile cameras are mounted flush to the wall so they don't cause any injuries to passengers. These ultra wide-angle cameras can feature horizontal views of up to 180° and vertical views of 90°, capturing a large section of the vehicle.

Why Consider Mobile Video Solution?

There are several reasons to consider a mobile video solution for a mass transit vehicle.

Safety

The biggest reason to implement a mobile video solution is to keep everyone safe. Monitor on-board activity and deter crime and vandalism, allowing drivers to focus on the road.

Additionally, see an optional backup camera view on a monitor while simultaneously recording video to the DVR — all through one integrated system — to increase safety around your vehicles.

Exonerate Drivers

The road is filled with distracted motorists and inattentive pedestrians. Without a mobile video system, an accident turns into a he said, she said situation, or you must rely on eyewitnesses to back you up. Also, you can get an explanation for a hard brake. Was the driver driving erratically, or did a car cut off the vehicle while trying to turn at a stoplight?

Protect Drivers

Help reduce driver assaults and harassment, and record video evidence of an incident to absolve your driver of any wrongdoing from a false claim.

Tell the Whole Story

Everyone wants to know the truth, and a mobile video solution shows exactly what happened inside and outside the vehicle. It can be difficult for mass transit drivers to remember all the details of an incident exactly as they happened. They have enough to worry about when it comes to keeping their passengers safe. Cameras can corroborate their story and fill in the blanks where the details are fuzzy.

Ensure Driver Accountability

Use real-world situations to train new employees or revisit safety procedures with current employees. Ensure proper protocols are being implemented and correct unsafe driver behavior.

What Features Does a Mobile Video Solution Offer?

There are several features to consider when selecting a mobile video solution for public transit vehicles.

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.

Some specially designed cameras, like stop-arm cameras designed for school buses, feature 180° field of view.

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 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.

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 the transit industry.

Radar and Sensors

In addition to a visual view with an in-cab monitor, radars and sensors located at the rear of vehicles can be added to give drivers audio alerts 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 solution, CloudConnect, which is a cloud-based solution that simplifies the data management process and saves time. CloudConnect allows you to request video and share footage with individuals either inside or outside your organization while storing the data on Pro-Vision's cloud.

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?

Warranty

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.

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.

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.

Where Are Cameras Mounted?

Dash cams generally are mounted on the windshield inside the vehicle, side cameras generally are mounted on exterior body panels 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.

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.
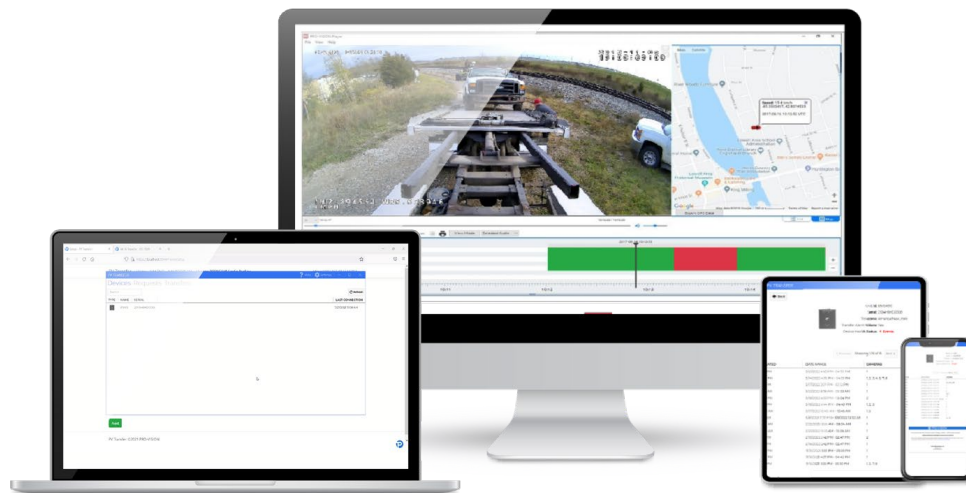
About Pro-Vision

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.

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