

# Next-Generation Video Surveillance Requirements for Public Transportation

*For protecting public transportation in Spain and EU, video-surveillance technology is rapidly changing.*

Against the challenges of rising terrorist strikes and public security threats during the past three decades, new technologies have emerged and evolved in support of worldwide counter-terrorism initiatives.

In the European theatre, governments and private enterprises have spawned new markets for technologies that monitor, detect, and thwart attacks in order to protect human lives and the critical infrastructure that enables our routines.

These same technologies are in fact providing security, but they are also significantly contributing to the efficiency and control of transportation networks and the assets used to provide real services to customers.

As recent attacks in Madrid and London, Paris and elsewhere have underscored, securing the public transportation network is a key element in local and regional security strategies.

In today's public transportation environments, advanced, real-time information sharing systems for total situational awareness are wanted.

Against the challenges of preventing another tragedy, simply capturing a video recording with a fixed-location camera is simply not adequate. Video surveillance requirements within the EU have evolved well beyond CCTV.

Mobile and live-streaming video surveillance has emerged as a required element in systems that protect travelers and the bus, rail, and air transportation networks that transport them.

British Airways has recently introduced DVR-based CCTV on 60% of its fleet for improved risk management, yet no real-time capabilities are provided.

Spain's rail system has gone further, enhancing its CCTV capability with a push-button, driver-triggered real-time streaming feature that leverages the trains' built-in GSMR network. Yet since the system cannot access any alternate

wireless network in event of network failure, system survivability is concern.

Solutions now exist for road transportation that combines GPS information with DVR for use "during and after the fact."

In Spain at the municipal level, there are three key areas of deployment. . .

- Metro Networks
- Bus Networks
- Micro-Transportation Systems

In the metro (underground networks) we have seen broad deployment of video-recording technologies that leave real-time event management to the driver and after-the-fact processing.

In such regions as Madrid and Murcia, the Spanish national police are currently adding driver-activated real-time video surveillance to the recording tools and systems already deployed on local bus fleets.

In the private sector, we have also businesses improving their fleet-management capabilities by incorporating new video-monitoring technologies with a focus on the security of capital equipment as well as vehicle operators.

Within 24 months, Madrid plans to equip 2100 vehicles with a video-recording system that is enhanced with driver-triggered live-streaming that provides decision makers with a real-time view of unfolding events in critical situations.

Murcia is currently developing a similar crime-deterrent and event management system. There are technological concerns, however. Solution platforms that depend upon 3G are not fully-reliable because of inconsistent bandwidth availability. So reluctance to invest in technologies with such a short "half-life" is quite understandable.

Barcelona's public transit system is following suit, yet multiple information systems need to be integrated. From airlines to government agencies to private security firms there is a growing need for a new generation of innovative solutions.

Happily, a new player has recently entered the video surveillance and security market. [Patton](#) Electronics, in business for over 25



years, is on the front lines of developing situational awareness systems. Initially developed in relationship with several [U.S. Government agencies](#), Patton's [Visuality™](#) Mobile Video Solutions is now commercially available from [Altadona](#) "Security Solutions For A Changing World," Patton's local partner in Spain.

In partnership with [VCORE](#) (fourDscape®) and [Qtags](#) (GuestAssist), Patton are introducing new total-awareness security and anti-terrorism platforms that will revolutionize the sector by integrating mobile live-streaming video with SMS alerts from any concerned civilian and a four-dimensional-visualization browser presentation at the command and control center.



Streaming live video, audio and global positioning over a standard 3G/4G (or private) wireless network, the unified system—dubbed [Total Fusion](#)—transforms mobile-borne assets into "eyes" whose view is displayed in a real-time virtualization.

Providing modern tools for deterring crime and fighting terrorism, the three-party system enables governments, industry and business to save lives, protect critical infrastructure and preserve valuable assets, which is providing the additional benefit of introducing control and efficiency in transportation systems.

Ideal for public transportation control and security—as well as event security, public safety, VIP protection, asset protection, and counter-terrorism operations—the three-party system packages Patton's [Visuality™ Mobile Video Surveillance](#) products in a fully-integrated solution, incorporating VCORE's fourDscape® four-dimensional browser and Qtags' GuestAssist™ SMS/web-based notification platform.

Incorporating video, voice, GPS, sensor data, and mobile-phone text messages from passers-by, existing capabilities can be leveraged into a new era of security management and control.

Among the powerful capabilities offered . . .

- Fully adaptable: ANY underlying wireless transport network can be leveraged for information delivery: public 3G, 4G, LTE, existing private, or currently unforeseen future technology.

- Mobile and live-streaming video: moving cameras show the action as it happens around and inside the bus, train, taxi, etc. in real time.
- High resolution video recording, with quick and easy swap-in, swap-out storage for forensic quality review and after-the-fact analysis.
- In-vehicle sensor data can be integrated and presented at a single centralized command and control center or multiple centers located on the ground.
- Existing fleet-tracking technologies can be enhanced with integrated GPS, real-time streaming audio-video, all presented in four-dimensions at the command center.
- Multi-level situational awareness delivered locally, regionally, or nationally.

Patton's unique [man-portable](#) and [vehicle-mounted](#) surveillance solutions provide military, government and other security teams with the critical tools they require for success when preventing terrorist attacks and protecting the general public as well as VIPs.

The [Visuality™ Mobile Video Surveillance Solutions](#) offer audio-video capture and real-time streaming with local storage and encrypted transmission to a remote command and control center—over standard cellular networks.

[Visuality™](#) supports [vehicle-mounted](#), as well as [portable-pedestrian](#), avionic, and fixed-terrestrial installations.

New technology from Patton, VCORE and Qtags, delivered locally in Spain by Altadona for public transportation systems, will enable governments, industry, and businesses to save lives, protect critical infrastructure and preserve

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- See the [Big Picture..](#)
- Visit the [Visuality Web Site...](#)
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*Enhanced real-time audio-video situational awareness.*

valuable assets.

Altadona, together with Patton, Qtags and VCORE offer modern tools for deterring crime and fighting terrorism in the public (and private) transportation sector.