

Innovative Solutions by Integrating GPS, Video and Google Map

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Introduction

In recent years, we have seen widespread use of GPS tracking units. Combined with mobile Internet, it provides fleet managers with a much more detailed picture of daily operations. These already provide a lot of useful functions like real time position tracking and route history recording. The next great leap forward, however, is to include both video surveillance and cloud computing services. And this is where ACTi comes into play.

As they say, “Seeing is believing.” Video surveillance systems have long provided the foundation of trustworthy records. With the advances in IP cameras, Google Maps, 3.5G mobile Internet and on-board computers, we have now arrived at an exciting time. Here we show you why integrating IP video, GPS and cloud computing is such an eye opener, and how it makes management much more effective.

Integrating Video, GPS and Google Map

Google Map is the most widely used map service on the Internet, with many possibilities to add additional function via plug-ins APIs. ACTi has created a system that harnesses the power of GPS positioning and Google Map display. By combining with real time GPS feed from vehicle, you may track vehicle locations right on Google Map simply through your web browser.



Add to this the capability of onboard computers and IP cameras that capture live video and serve as entry points for Digital Input devices, and powerful applications become reality.

We can now link to a live view from any vehicle at any given time. This means that whenever any event happens, we can receive both alerts and live view for improved response.



Let's find out how such capability creates real benefits.

Sample Applications

- **Application #1 – Comprehensive Recording from Ambulance Clarifies any Medical Disputes**

The ambulances in the fleet are equipped with GPS Receiver, Mobile internet Adapter, ACTi IP

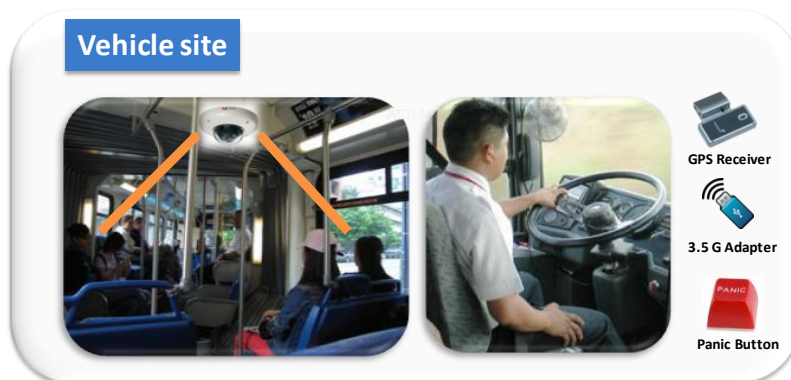
Camera and an onboard NVR installed on car base computer.

The dispatch center maintains a clear overview of the ambulance location and environments. Cameras located in the patient transport cabin document the state when patient was picked up by the ambulance, and records all emergency procedures made by accompanying paramedics. DI inputs connected with rear van gates document arrival and dispatch times. This means that all medical disputes can be properly investigated and responsibility assigned properly to each party involved. Performance metrics are also easy to obtain and analyze.



- **Application #2 – Panic Button & Alert**

The bus is equipped with GPS Receiver, 3.5G Adapter, ACTi Camera and a Panic Button. Should any incident occur to the bus, the bus driver may press the Panic Button to send an alert to the control center and call for help.



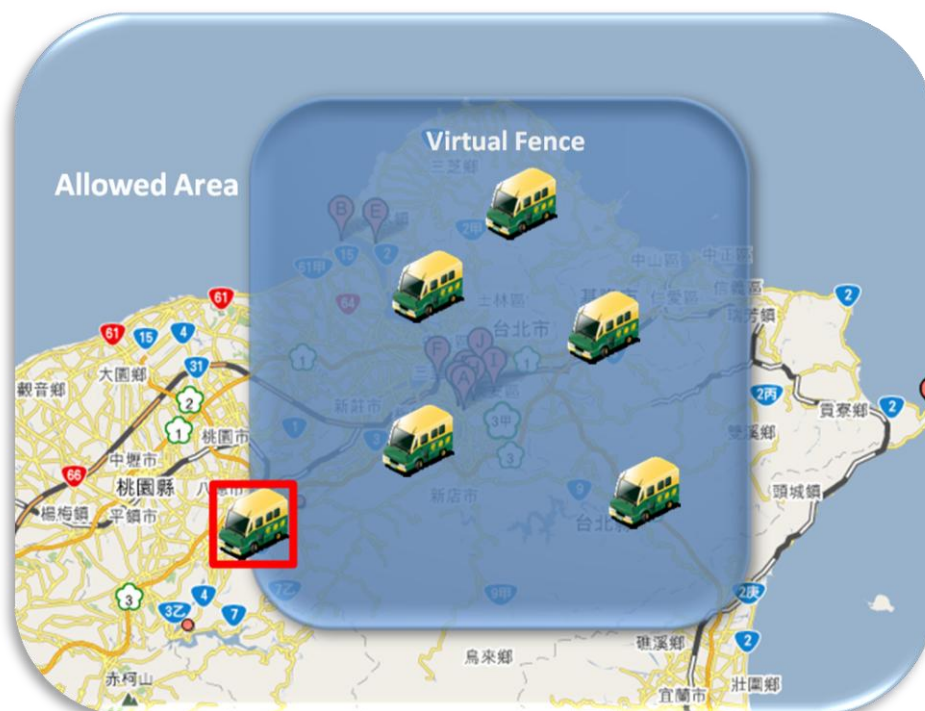
In the Control Center Room, the Guard will see a pop up from the Fleet Management Software. At the same time, the live view from the bus will be brought up to the Guard for further response.



- **Application#3 – Virtual Fence /Route Monitor Alert**

By using monitoring vehicle position via GPS, It's possible to set a Virtual Fence to precisely keep track of your fleet during the day on the Fleet Management Software.

For Freight Fleet dispatch centers, you may set a boundary in which your trucks may operate. If a truck moves beyond the predefined area, it may be on an unauthorized trip, and proper alerts may be triggered.



In some scenarios you may maintain even tighter control down to the path level. You may draw a special path for your vehicle to assign waypoints and time markers upon. If the delivery van does not arrive at a customer location within a time window, it is immediately highlighted in the control center. If a Cash In Transit Van moves off the predefined path or stops more than the allowed time on the way, video records and live view can be immediately accessed to ward against insider theft or robberies.

With all other fleet management methods like RFID tags posted along the way, you get only an indicator of performance. With video recording, you get “real time, real view” information with one hundred percent confidence. There’s no longer any ambiguity in your fleet control.

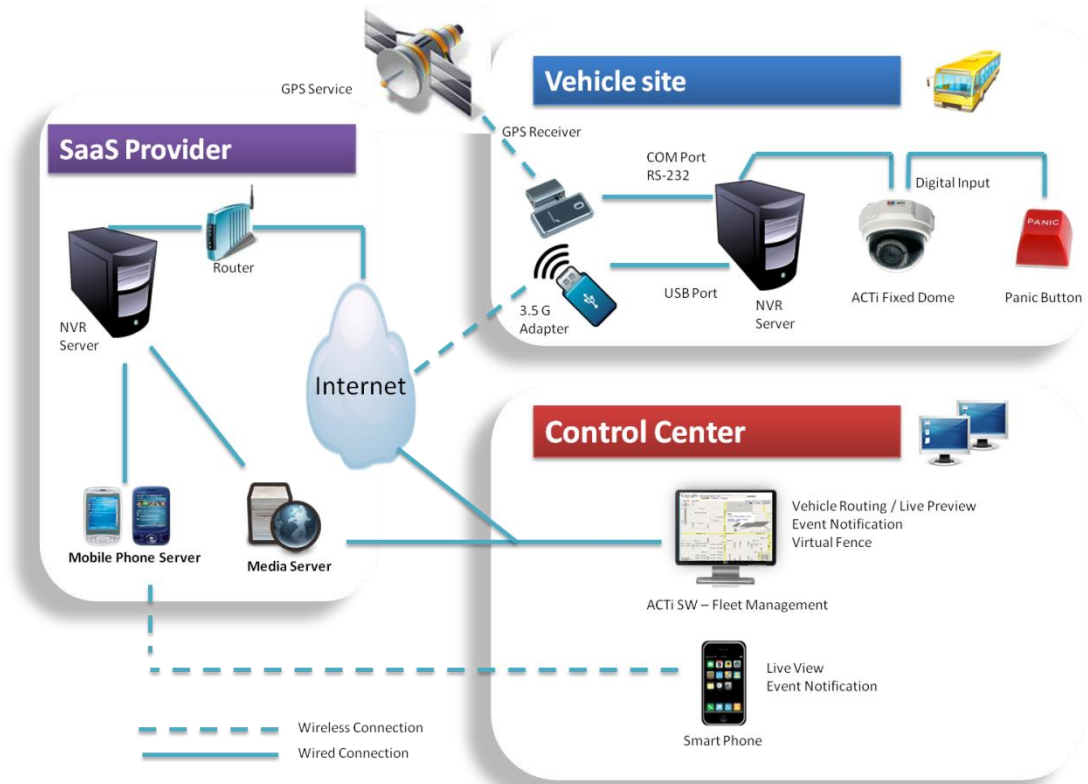
Not only do you obtain video feed over the airwaves, it can also be delivered remotely. With our Mobile phone extensions, you can receive real time alert and push video on your mobile phone device, so that you may manage the roaming fleet while on the move yourself. Freedom of movement and security has never meshed so well before.



The possibilities are endless, and the only limit is your imagination.

Information Flow Diagram

In order to understand how video is sent from the Vehicle to the Control Center and how the devices are physically connected together, here is the Information Flow Diagram.

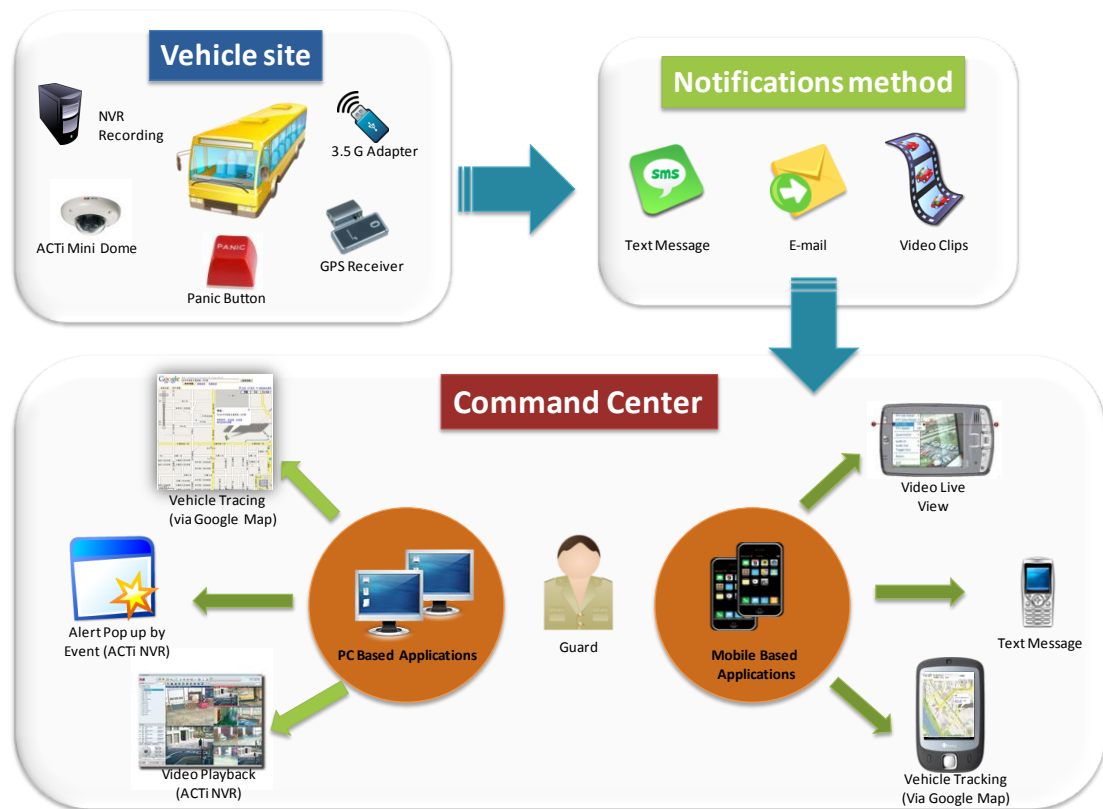


SaaS = Software as a Service

It's a model of software deployment where an application is hosted as a service and delivered over the Internet. It removes the hassle and one time investment involved in setting up the software in your own network. Instead you pay a subscription fee for access rights to the system. Upgrades and background maintenances are all managed by the provider, so the end user is exactly that, a User and not a reluctant system administrator.

More on SaaS from Wikipedia: http://en.wikipedia.org/wiki/Software_as_a_service

Solution Components



Note:

The Solution Architecture may vary according to your location and needs. For 3.5G internet access, you should contact your local service providers for details.

Get in Touch with ACTi Project Services Team

Our dedicated team members are eager to work with you on your unique project. We want to design comprehensive solutions that you will be proud of. From initial design to system maintenance, we are here to help.

Contact our Project Services team for more details via [ACTi Sales](#).