



Fuel theft is a known problem for owners and managers of petrol stations. It not only causes a large loss of revenue; it also leads to unsafe situations for both employees and customers. AVUTEC has the best and proven solution to this problem by offering a system which drastically minimalizes fuel theft.

The Drive off Prevention System (DPS) uses the existing cameras to read the number plates of incoming vehicles and compares these to a central blacklist in the cloud of previous drive offs. In case a match is found, an alarm at the POS terminal warns the cashier to act by, for instance, blocking the fuel pump. This early alert results not only in a decrease in the loss of revenue of a petrol station, it also makes employees feel more safe and secure as thieves will stay away.

### DPS system configuration

The Drive off Prevention System(DPS) consists of the following elements:



#### ANPR engine

Plate capture accuracy is achieved thanks to AVUTEC's in-house developed ANPR engine. The technology is backed by over 10 years of ANPR analytics research and development. Due to constant evolvement the engine is highly accurate even in bad weather conditions or in reading plates at difficult angles.

#### DPS hardware

- A CortexServer, AVUTECs ANPR server, to connect to analog and IP cameras, or a Gatekeeper, AVUTECs standalone embedded ANPR camera.
- One or more tablets to place at the checkout.

#### DPS cloud repository

The centralized cloud ANPR registration provides the blacklist of the European drive off registry and adds car data, when available, to recognized license plates.

#### The management website

A secure account provides access to the personalized management website. On this website new drive offs are registered along with the loss amount, image of the vehicle, the number plate and comments from the cashier or station manager. Also multiple petrol station locations can be managed from a single administrator account.



## Deployment

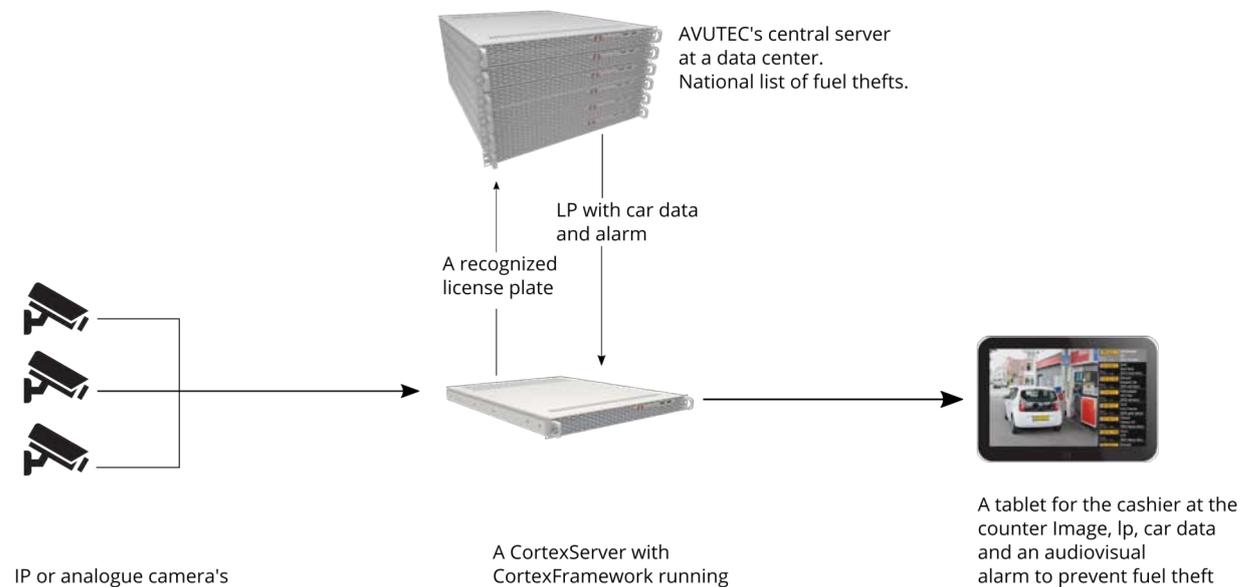
When deploying DPS, the choice is either to use a Gatekeeper or to connect a (existing) camera system to a CortexServer. CortexServer accepts video input from both analog and IP cameras. Depending on the quality the existing camera system can be used. The ANPR server is placed at the back office and can process the images of at least 8 analog cameras or a total of 20MB from digital input.

The Gatekeeper is developed for recognition in all weather and light conditions. Installation is done with a single cable and no extra processing units are needed since all processing is done inside the ANPR camera. It can read up to two pump positions depending on its placement and local circumstances.

## Prevention is better than cure

DPS recognizes the number plates of all incoming and refueling vehicles and instantly compares them to the cloud-based DPS registry. If a match is found, the tablet at the checkout sounds an alarm and shows a warning to act and prevent the drive off.

The DPS tablet displays images of vehicles at the fuel pump, together with their corresponding number plates and additional car data when available\*. This information can be compared to recognize a false number plate. If the car data\* informs a red Volkswagen just entered the perimeter while the image on the tablet is showing a white Volvo, a simple comparison may stop a potential fuel theft.



## Two step authorization

In case a non registered vehicle that commits fuel theft, it is easily added using the tablet. An image and the corresponding number plate are placed automatically on the local list of the petrol station and will generate an alarm the next time the license plate is recognized at the station it has been reported.

To place a license plate on the European DPS registry, to alert all connected petrol stations, a two factor authorization is used. This drive-off license plate has to be authorized via the management website. Double checking a drive-off license plate will make sure the proper offender's vehicle to be registered and prevents undesirable situations at the checkout.



## Benefits

- The warning signal that sounds if a known offender is recognized, makes sure employees of the petrol station can undertake immediate action and prevent the fuel theft.
- DPS prevents petrol theft, as offenders usually are aware which petrol station uses the drive off prevention system and stay away.
- The management website shows graphs of regular customers and peak hours. This information improves customer insight and helps to set up a loyalty program.
- As the local DPS CortexServer connects to existing camera systems, a DPS system is affordable for all petrol stations, regardless if petrol theft needs to be mitigated or marketing data is required.

## Testimonials

*"The DPS is very helpful to prevent drive offs. But it is also very helpful when a regular customer pays for a purchase in the shop and forgets to pay for the fuel. In this case it doesn't feel right to involve a collection agency. However, if we enter the number plate of this customer in the DPS system, we get a notification as soon as the customer returns. We can then kindly inform the client about the outstanding amount of a previous visit and solve the problem immediately. This makes the Drive off Prevention System a multifunctional and customer friendly system!"*

*"The Drive off Prevention System is a wonderful instrument to prevent drive offs. Use the system in the proper manner and your drive offs will go down dramatically. Our cashiers are challenged to block the pump as soon as a drive off match has been made or the second the alarm gives a clear signal. Cashiers are more alert, feel safe and our drive offs have decreased. We are happy."*

## AVUTEC

As a Dutch developer and manufacturer of ANPR sensors and system solutions, AVUTEC's expertise and knowledge have set a benchmark for quality and the best available accuracy. The in-house developed AI hardware and software cooperate seamlessly to provide a maximum accuracy and speed in ANPR or any other Video Content Analysis. From embedded ANPR IoT sensors to a complete computer vision and recognition system, AVUTEC provides nothing but the best, with the highest possible flexibility, all fully remotely managed.

For more information on the Drive off Prevention System or our other solutions, please contact our sales department:



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