Video Analytics Success in Critical Infrastructures: Prisons

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DAVANTIS

Success of Video Analytics in Critical Infrastructures

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Prisons present some tough challenges when it comes to the level protection and security required

Critical infrastructures are protected by security systems made up of several systems to safeguard staff, incarcerated persons, and visitors, and to foil any attempts to escape.

What's more, **perimeter security systems in prisons must do more than prevent possible uprising, detecting the presence of people close to the surrounding fences** to stop smuggling in prepaid phones, drugs, weapons, and other types of contraband.

DAVANTIS specialised in video analytics for perimeter protection. For more than 15 years, we have worked exclusively on provide **effective solutions for complex installations and critical infrastructures**.

Our artificial intelligence systems are based on deep-learning algorithms capable of detecting people and objects at long distances and in difficult environmental conditions.

Maximum protection for prison buffer zones: stopping escapes and smuggling

Escape control, internal prison security and the threat of contraband coming into the prison perimeter require a high level of protection beyond the capabilities of a traditional solution to ensure early detection beyond the outer prison perimeter.

The coverage afforded by the DFUSION solution can be extended to this "buffer zone", an area that is often poorly lit, dangerously exposed to sabotage and with complex characteristics for installing cameras or other security devices.

However, DFUSION video analytics systems are ideal for guaranteeing effective perimeter security in these installations by combining algorithms that merge the appearance and movement of images for more accurate detection and to avoid missed detections. Not only does make CCTV video surveillance systems far more efficient, it also drastically reduces false alarms, optimising operating costs.

What's more, our video analytics system integrates easily with all alarm management platforms (VMS, PSIM), streamlining the work of control centres. DFUSION gives real-time **access to images captured by CCTV cameras to facilitate the alarm verification process**. Our solutions ensure precision detection with minimum false alarms. They can also detect attempts at sabotage and technical faults, so that security staff can react in
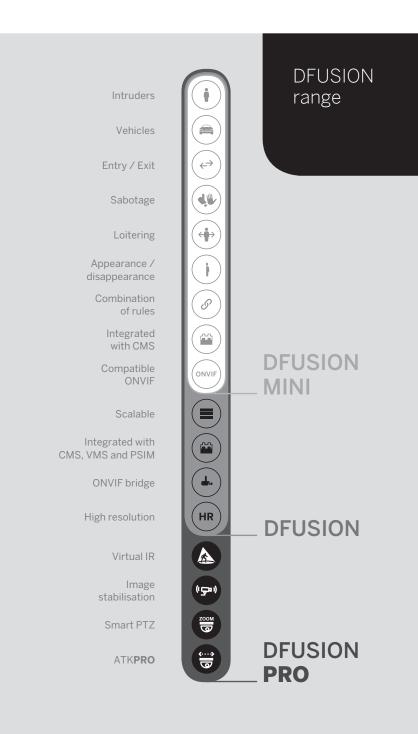
a question of seconds and activate deterrent measures if necessary. It is a **video analytics solution with two detection engines based on artificial intelligence** beyond deep learning, perfect for perimeter security in critical infrastructures.

Video analytics: Smart functions for prisons

Internationally endorsed by the **Centre for the Protection of National Infrastructure (CPNI)** based on the efficiency and quality of our solutions, DAVANTIS has a team of experts in video analysis and critical infrastructures to advise on all phases of the installation and maintenance project. This makes it possible to determine security needs according to the type of prison: maximum, medium, or minimum security.

DFUSION range

Intruders

Vehicles

Entry / Exit

Sabotage

Loitering

Appearance / disappearance

Combination of rules

Integrated with CMS

Compatible ONVIF

DFUSION MINI

Scalable

Integrated with CMS, VMS and PSIM

ONVIF bridge

High resolution

DFUSION

Virtual IR

Image stabilisation

Smart PTZ

ATK**PRO**

DFUSION PRO

Prisons protected by DAVANTIS video analytics in the United Kingdom

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DAVANTIS has been managing prison perimeter security for years both in Spain and abroad. Our smart video analytics system achieves the highest levels of precision and efficiency in critical infrastructures thanks to deep learning algorithms and total integration and adaptability. Discover real efficiency with DFUSION!

DFUSION is used to more than five prisons in the United Kingdom, four of which are maximum-security. Our solutions are endorsed and certified by the CPNI.

HMP / Her Majesty's Prisons

CPNI®
Centre for the Protection
of National Infrastructure

Fontcalent Prison, Alicante

Spain

Fontcalent is on the Valldonga Industrial Estate in Alicante province. It occupies a 171,600 m^2 site and has a building with a useful area of 60,587 m^2 containing 453 cells (plus 48 ancillary cells).

The perimeter and common areas used by incarcerated people are surveilled by a smart video analytics system capable of detecting intruders and foreign objects in an instant. DFUSION uses deep learning algorithms to merge appearance and movement for more **efficient detection and false alarm management**.

**Fontcalent Prison /
Google Maps and Google Earth**

Pereiro de Aguiar Prison, Ourense —

Spain

This prison is in the autonomous region of Galicia. The prison building measures almost 35,600 m² on 200,000 m² of land. It has 243 cells and another 24 ancillary cells.

The goal of achieving effective communication between the video analytics system and the alarm receiving centre was the cornerstone of the project. DFUSION allows security staff to react within seconds and activate deterrent measures in case of intruders, sabotage, and loitering, reducing false alarms.

**Pereiro de Aguiar Prison /
Google Earth and Google Maps**

Monterroso Prison, Lugo

Spain

This prison is in the province of Lugo (Galicia), 40 km from the city and 8 km from the town of Monterroso.

It occupies a building of almost 41,029 m² on a 120,000 m² plot with capacity for 350 inmates (328 cells). Due to its location and shared spaces, our DFUSION **video analysis solution** was chosen to effectively manage **early detection and reduce false alarms**.

**Monterroso Prison /
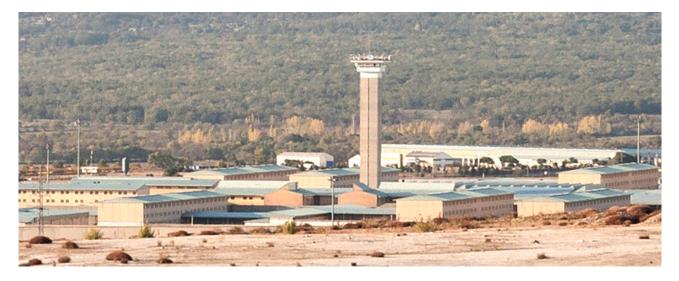Google Earth**

Soto del Real Prison, Madrid —

Spain

This prison, 40 km from Madrid, occupies a building of almost 79,000 m² on a 633,000 m² plot and has capacity to house around 2,000 incarcerated people. Its mission is to effectively manage **protection both within its facilities through a CCTV video surveillance system and image control and supervision on the periphery of the premises**.

To this end, our **DFUSION** video analytics solution has been installed correctly, integrating with the alarm management platform and other hardware elements.

Soto del Real Prison / Google Earth

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