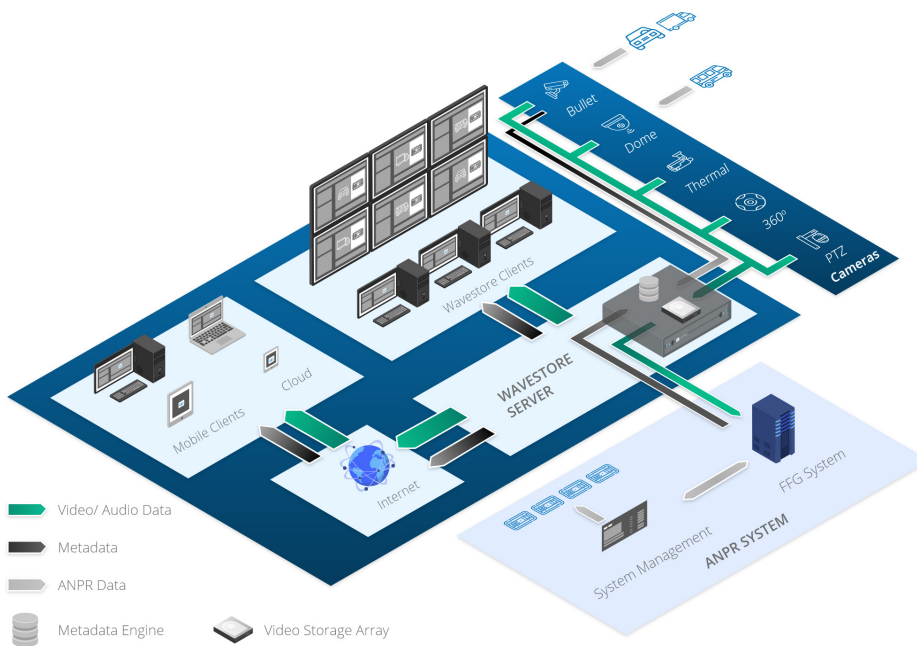


# FFG ANPR System

Using illumination technology for number plate capture and in-camera image processing software, FF Group ANPR app TraFFic CaMMRa can scan plates from all registered vehicles to provide effective access control and traffic monitoring solutions. This plate recognition technology can be used in conjunction with regular IP-cameras, and efficiently managed on one screen through Wavestore's VMS.



## Server side

Number plate data and images captured and processed by FF Group camera app TraFFic CaMMRa is sent to, stored in, and accessed from the Wavestore metadata engine, which is an option you must include when specifying your Wavestore VMS edition.

The Wavestore VMS can be installed on Wavestore's own range of servers, or on a host of compatible third-party brands, providing video, data and recording management across the end-customer's site.

Each number plate image is received instantaneously, which enables the operator to quickly verify events as they occur. The FF Group system provides full number plate enrolment, administration, control and management across the end-customer site. Using the Wavestore platform, overview cameras can be easily integrated to provide situational awareness in a complete solution.

## Client side

Wavestore's WaveView client software application can be installed on multiple client machines to access the Wavestore server(s). WaveView provides complete live monitoring and playback control of cameras and other devices, as well as enabling data and number plate images from FF Group app TraFFic CaMMRa to be monitored and

controlled from the same screen. The FF Group ANPR technology sends each number plate image instantaneously to the client which can also be associated with an overview of cameras, enabling the operator to quickly verify events in real-time. Users can manage complex Event Rules including combined or consequential events triggering alarms or actions, such as emailing a video clip. In addition, it is possible to overlay individual number plate details upon capture to any number of associated cameras. This allows an operator to view live video, search for events or manage triggers linked from access control events either as they happen or via post-event interrogation.

Operators are then able to easily stitch together video from time-synchronised events using Wavestore's 3-click evidential export function. Users can search for specific number plates or number plate groups via WaveView, to quickly bring up event lists and associated video, incorporating IF, AND, OR functionality to search for number plates that have, for example, entered a specific entrance. Event Rules can be configured by combining event triggers from multiple different sources using Boolean operators; AND, OR and XOR to produce event responses when just the right set of circumstances occur. Client Actions can be programmed to alert operators using WaveView, controlling what is shown on-screen to ensure they are kept fully aware of a situation, even when multiple events are occurring concurrently.

## Key features

- Recognition accuracy higher than 95% worldwide (Europe, Africa, North America, Australia and New Zealand, Middle and Southeast Asia) in speeds up to 160 km/h
- Add vehicle make, model and colour recognition technology (MMR) – the app can recognize 10 colours, 80 brands, and 789 models, plus classify them into 6 classes
- Plate recognition technology uses illumination (such as infrared) and a camera to take the image of the front or rear of the vehicle, then an image-processing software analyses the picture and extracts the plate information
- Access control: automated access control to parking in parking spaces, dynamic access rules modification, centralized control over the system
- Traffic monitoring: real-time data and alerts for criminal and civil offence prevention, city traffic control, analyse highway load and highway traffic, etc.
- Each number plate image is now received instantaneously which enables the operator to quickly verify
- Adds powerful post-event search functionality to ANPR applications
- Benefit from adding overview cameras to ANPR cameras, providing better situational awareness events as they occur
- Customise actions from triggered events, which can enable any number of actions such as operating third-party components, emailing video clips and alerting security personnel
- Easily search for events from any keyword which will instantly bring up video, and backup using Wavestore's 3-click evidential export function from associated cameras

## WAVESTORE INTEGRATES

# FFG ANPR System

### What to order

To enable FFG ANPR integration with Wavestore's VMS, please order the following for each Wavestore NVR/HVR:

INT-WS-FFG-01 - Integration module for full one-way communication between Wavestore and FFG. Order one per Wavestore NVR/HVR.

The FFG integration module is compatible with Premium, Enterprise and Ultimate level channel licenses.

If you require any additional assistance, please contact Wavestore via: [info@wavestore.com](mailto:info@wavestore.com)



### About Wavestore

Wavestore, the British developer of innovative open platform Video Management Software (VMS), supports you every step of the way to help you effortlessly unlock the full potential of your client's security solutions and maximise their return on investment, while providing you with a reliable and independent open platform VMS partner who can make even the most complex integrations simple.

Completely independent and open-platform, Wavestore's VMS delivers powerful video recording, storage and event management coupled with seamless integration to third party devices and sub-systems - including cameras, access control, advanced video analytics, intruder detection, EPoS and video walls, to name but a few, from the world's leading vendors.

Wavestore's 'One screen, total control' philosophy makes it possible to manage everything from the smallest standalone site to the largest and most complex multi-site and multi-technology security solutions efficiently and easily from a single client computer or mobile device, bringing together video, audio and metadata to fully meet the requirements of your specific application.

**Website:** [wavestore.com](http://wavestore.com)

**Contact:** [info@wavestore.com](mailto:info@wavestore.com)



### About FF Group

FF Group companies offer out-of-box intelligent security solutions on the EDGE (IP video camera processor), that support traffic, access control, and parking management projects. Our team's advantage is the ability to design powerful and sophisticated traffic control technologies in simple and affordable products for monitoring and management.

Based on a strong RnD core, FF Group implements a range of unique, smart, and cost-effective solutions. We build our products using vehicle plate, make, model, colour recognition; intellectual data processing; "camera-to-camera" communication technologies. All solutions are based on front edge recognition and computation expertise, many years of our developers' experience in data science, huge accumulated datasets, own mathematical approaches, and deep learning.

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