

WISeNET

# AUTOMATIC INCIDENT DETECTION SOLUTION

Keeping traffic moving

WISeNET



Hanwha Techwin Europe  
Heriot House, Heriot Road, Chertsey, Surrey, KT16 9DT, United Kingdom  
Tel: +44.1932.57.8100 Fax: +44.1932.57.8101  
www.hanwha-security.eu

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# Video surveillance and analytics technology combine to keep traffic on the move

With ever increasing numbers of vehicles causing congestion within city centres and on highways and motorways, local authorities are under increasing pressure to keep traffic on the move by reacting quickly and effectively to any traffic incidents, as well as anticipate when traffic jams will occur.

Video surveillance specialists Hanwha Techwin and analytics experts Sprinx Technologies have combined their expertise to offer a complete, easy to deploy and affordable traffic event detection and reporting solution.

## Sprinx Traffic AID (Automatic Incident Detection)

**Traffic AID** is an edge-based application running on-board Hanwha Techwin high definition Wisenet X cameras. The full **Traffic AID** solution can reliably detect incidents and events in traffic flow on critical infrastructure such as roads, highways, tunnels and intersections. **Traffic AID** generates an alert when traffic incidents occur, as well as provides reliable traffic flow data. All information is then delivered via an intuitive web user interface.



**Traffic AID** has the ability to detect events simultaneously on independent zones, including:

- When traffic is slowing down or if there is a lengthening queue
- If a vehicle has illegally stopped or broken down on a busy main road
- A wrong way driver
- A pedestrian in danger
- Smoke or low visibility in a tunnel
- Lost Cargo

and to collect statistical data such as:

- Counting and Classification
- Average Speed
- Origin-Destination Matrix (OD)



In addition to the full **Traffic AID** solution, the following edge-based application are available as separate offerings on Wisenet X cameras:

- **Sprinx Pedestrian and Stop Detection (PSD)**
- **Sprinx Traffic Flow**
- **Sprinx Traffic Data**

## Sprinx Pedestrian and Stop Detection (PSD)

The **PSD** application can detect a stopped vehicle and a pedestrian in a tunnel or on a roadside such as hard shoulders and emergency laybys.



## Sprinx Traffic Flow

The **Traffic Flow** application is the ideal video surveillance solution for monitoring traffic on roads, motorways, tunnels and in cities. It can detect stopped vehicles, estimate the traffic flow and automatically alerts operators to queuing and congestion on the roads. Based on advanced video detection technology, **Sprinx Traffic Flow** allows you to monitor two different lanes/zones of traffic simultaneously.

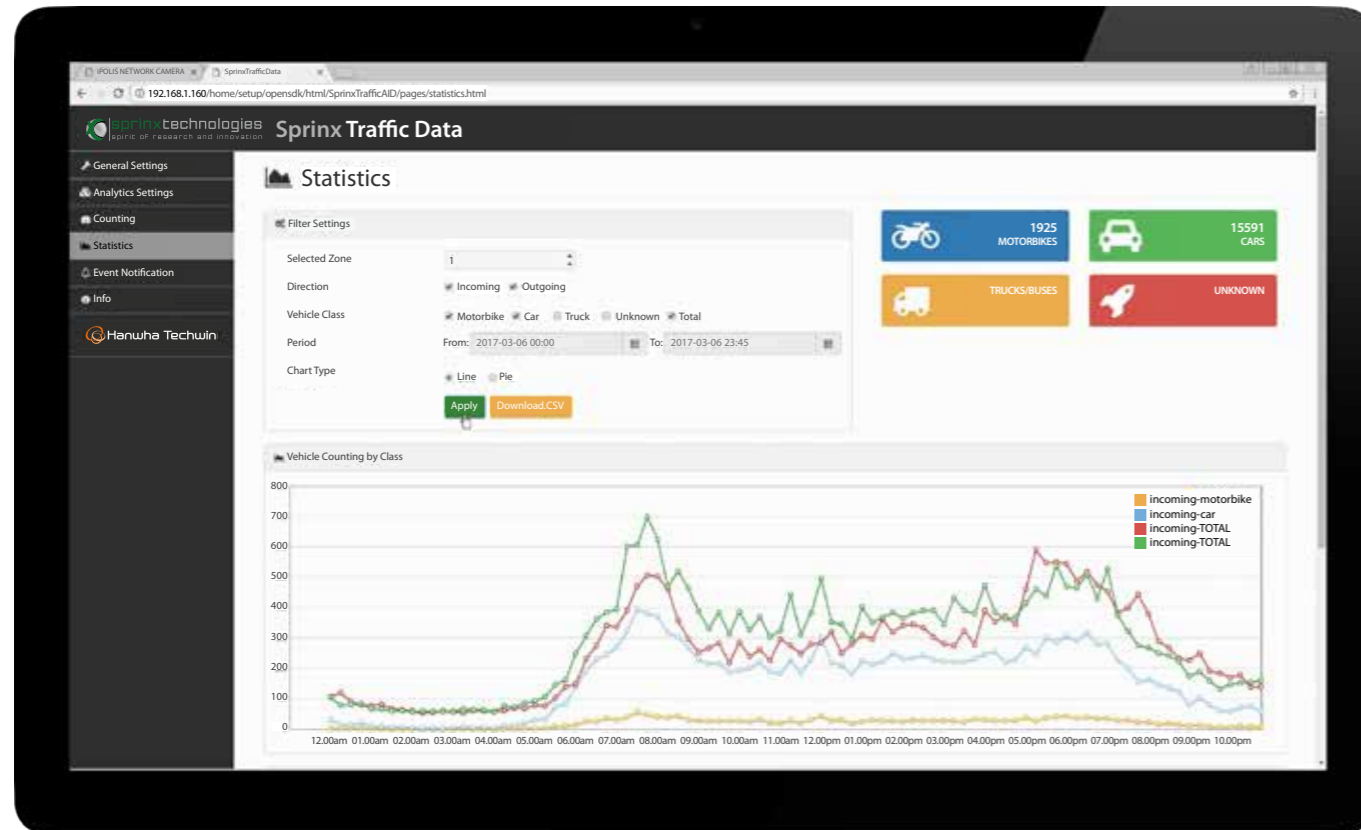


**Sprinx Traffic Flow** detects the following events:

- Stopped Vehicle (on carriageway, hard shoulder, emergency layby, no-parking area)
- Slowdown / Near Capacity Flow
- Queue / Congestion

## Sprinx Traffic Data

The **Traffic Data** application has been designed with city environments in mind for monitoring the flow of motorbikes, cars, lorries and buses. It can keep track of vehicles moving in a Wisenet X camera's field of view and is able to collect data on two independent lanes/zones at the same time and in both directions of travel.



**Traffic Data** can record and store relevant statistical data including:

- Vehicle counting and classification
- Traffic density and flow
- Average speed

Plus: a cleverly devised Origin-Destination Matrix (OD) feature highlights traffic conditions at busy city centre crossroads and roundabouts.



## Sprinx Traffic Hub

**Sprinx Traffic Hub** is a server software application for collecting and aggregating data from multiple network-connected cameras running Sprinx Traffic Applications on board. Through its web user interface, Traffic Hub enables a quick overview of all traffic events detected by the cameras and provides comprehensive graphs about traffic data such as vehicle counting and average speed.

**Traffic Hub** includes a pdf exporting tool of the collected events, helpful for operators in evaluating the performances of the system.

It also offers easy integration with 3rd party systems including ITS platforms, SCADA and PSIM.



In complex architectures Traffic Hub can work as a proxy server forwarding all the events collected from the cameras to 3rd party software or VMS platforms. This feature definitely simplifies the integration process avoiding the communication with every single camera connected on the network. The same communication interface enables 3rd party applications to disable some or all the detection features in the case of road maintenance.

## Integration with Wisenet cameras

The following Wisenet X cameras from Hanwha Techwin are fully compatible with the Sprinx Traffic Hub server software.

### XNB-6000

2M Network Camera



\* Lens not included

#### Key Features

- Max. 2megapixel (1920 x 1080) resolution
- 0.01Lux@F1.2 (Color), 0.001Lux@F1.2 (B/W)
- Max. 60fps@all resolutions (H.265/H.264)
- H.265, H.264, MJPEG codec supported, Multiple streaming
- Day & Night (ICR), WDR (150dB), P-Iris, Defog
- Digital image stabilization with built-in Gyro sensor
- Loitering, Directional detection, Fog detection, Audio detection, Digital auto tracking, Sound classification, Tampering
- Motion detection, Handover
- SD/SDHC/SDXC memory slot (Max. 512GB)
- Hallway view, WiseStream II support
- LDC support (Lens Distortion Correction)
- PoE / 24V AC, 12V DC, Bi-directional audio support

### XNB-6005

2M Network Camera



\* Lens not included

#### Key Features

- Max. 2Megapixel (1920 x 1080) resolution
- 0.006 Lux@F1.2 (Color), 0.0006 Lux@F1.2 (B/W)
- Max. 60fps@all resolutions (H.265 / H.264)
- H.265, H.264, MJPEG codec Supported, Multiple streaming
- Day & Night (ICR), WDR (150dB), Defog
- Digital image stabilization with built-in Gyro sensor
- Loitering, Directional detection, Fog detection, Audio detection, Digital auto tracking, Sound classification, Tampering
- Motion detection, Handover
- SD / SDHC / SDXC memory slot (Max. 512GB)
- Hallway View, WiseStreamII Support
- LDC, PoE / 24V AC, 12V DC, Bi-directional audio Support

### XNO-6120R

2M Network IR Bullet Camera



#### Key Features

- Max. 2megapixel (1920 x 1080) resolution
- 5.2 ~ 62.4mm (Optical 12X) Optical Lens
- Max. 60fps@all resolutions (H.265/H.264)
- H.265, H.264, MJPEG codec supported, Multiple streaming
- Day & Night (ICR), WDR (150dB), Defog
- Digital image stabilization with built-in Gyro sensor
- Loitering, Directional detection, Fog detection, Audio detection, Sound classification, Tampering
- Motion detection, Handover
- SD/SDHC/SDXC memory slot (Max. 512GB)
- Hallway view, WiseStream II support
- IR Viewable Length 70m (229.66ft), IP67 / IP66, NEMA 4X, IK10
- LDC support (Lens Distortion Correction)
- PoE / 24V AC, 12V DC, Bi-directional audio support

Sprinx Application	Wisenet X Product
Traffic AID	XNB-6000/AID
	XNB-6005/AID
	XNO-6120R/AID
Traffic Flow	XNB-6000/TF
	XNO-6120R/TF
Traffic Data	XNB-6000/TD
	XNO-6120R/TD
PSD	XNB-6000/PSD
	XNO-6120R/PSD

Sprinx Traffic Hub	Wisenet Product
The Sprinx server software is available in 3 packages	
Up to 4 channels	TH-4
Up to 16 channels	TH-16
Up to 48 channels	TH-48
Optional output modules	
OPC DA	TH-OPC
MODBUS	TH-MOD
MOXA	TH-MOX
Milestone Analytics	TH-MIL