



VIDEO INCIDENT DETECTION SYSTEM

TECHNICAL DATASHEET

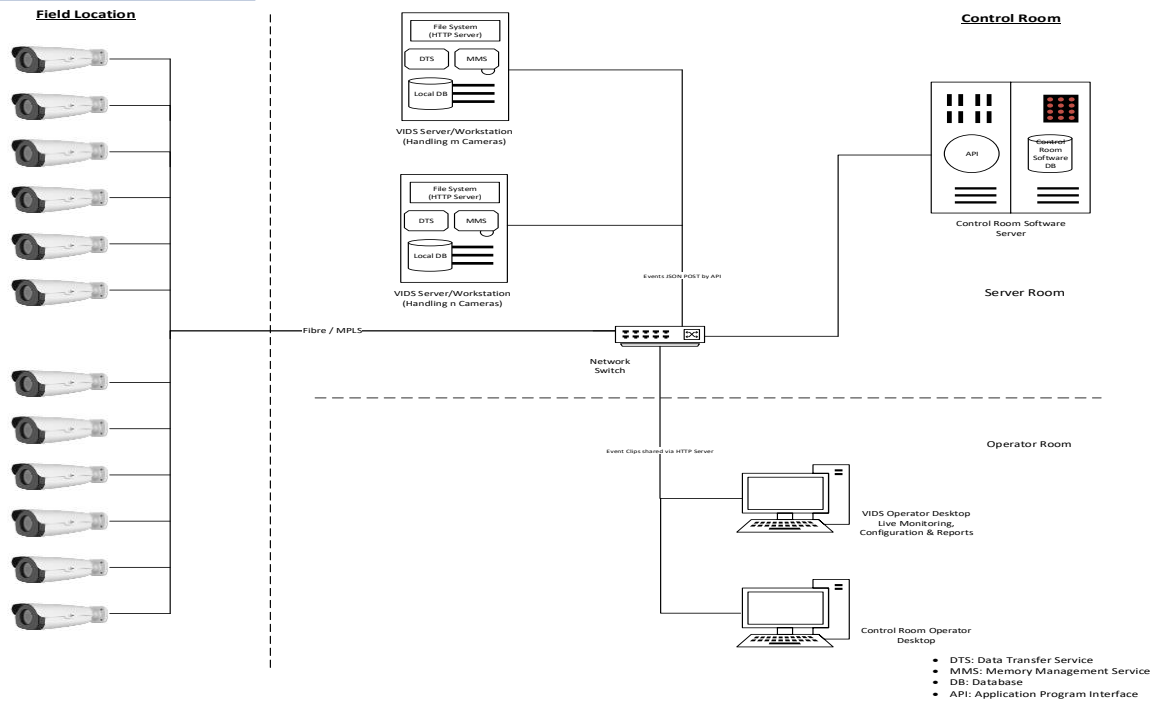
At a Glance

The VIDS shall detect incidents occurring in the selected area within the Camera Field of Vision for eg. on Highways or, Cities or, Campuses and raise an alarm/event to the Control Room Operator & Software for further necessary action. Typical incidents derived using advanced Image processing and Artificial Intelligence algorithms are as follows:

- Detection of vehicles driving in wrong direction.
- Automatic Detection of 5 types of traffic flow.
 - Normal
 - Dense
 - Delayed
 - Congested
 - Stop and Go
- Detection of stopped vehicles, within 10 sec and for up to 16 detection zones.
- Monitor Zones occupancy of the detection area.
- Detection of vehicles with sudden de-acceleration.
- Detection of Low Visibility due to fog/smoke.
- Detection of fire.
- Detection of fallen object.
- Detection of No Video Signal from field equipment.



Typical VIDS Architecture



VIDS Technical Specifications

VIDS Camera (Typical Specifications):

SNo.	Parameter	Specifications
1	Sensor	1/1.8", 2 megapixel, progressive scan, CMOS
2	Lens	6.5 ~ 143mm, AF automatic focusing and motorized zoom lens
3	Angle of view (H)	59°~ 3° (H); 34.6° ~ 1.6° (V); 72.6° ~ 3.6° (O)
4	Shutter	Auto/Manual, 1 ~ 1/100000s
5	Minimum Illumination	Color: 0.0005 Lux (F1.5, AGC ON); 0 Lux with IR
6	Iris	Auto/Manual, F1.5 ~ F3.4, DC-Iris
7	Day/Night	IR-cut filter with auto switch (ICR)
8	IR Range	up to 200m (656ft) IR range
9	WDR	>120dB
10	Video Compression	Ultra 265, H.265, H.264, MJPEG
11	Frame Rate	Main Stream: 2MP (1920*1080), > 60 fps
12	HLC / BLC	Should be supported
13	Compatible Integration	ONVIF (Profile S, Profile G, Profile T), API
14	Network	1 RJ45 10M/100M Base-TX Ethernet
15	Power	AC 24V±25%, Max 21W, -P: PoE (IEEE 802.3at)
16	Environmental	-40°C ~ 60°C (-40°F ~ 140°F), Humidity: ≤95% RH
17	Ingress Protection	IP67

VIDS Processing Unit: The compute requirement of VIDS Processing Unit at Control Centre is required to be optimally scaled as per number of Camera's/Locations it is required to handle. A typical VIDS Processing Unit for handling approximately 6 Video streams is as follows.

SNo.	Parameter	Specifications
1	Processor	Intel Xeon Processor W-2295 18C 3.0GHz
2	Operating System	Ubuntu Linux 18.04
3	Memory	32GB 2x16GB DDR4 2933MHz RDIMM ECC Memory
4	Graphics	Nvidia Quadro RTX5000 16GB
5	Storage	3.5" 8TB 7200rpm SATA Enterprise Hard Drive
6	I/O Ports	USB 3.1 Gen 1 Type A (6); Serial (1); RJ45 Network (1); PS2 (2); Audio Line out (1); Audio Line in/Microphone (1)

Typical VIDS Events



Wrong Direction Detection



Stop Vehicle Detection



Vehicle Overspeed Detection



Traffic Flow Detection: Dense



Traffic Flow Detection: Congestion



Fog/Low Visibility Detection



Fire/Smoke Detection