AI Powered People Counting

Datasheet v4.3

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AllGoVision

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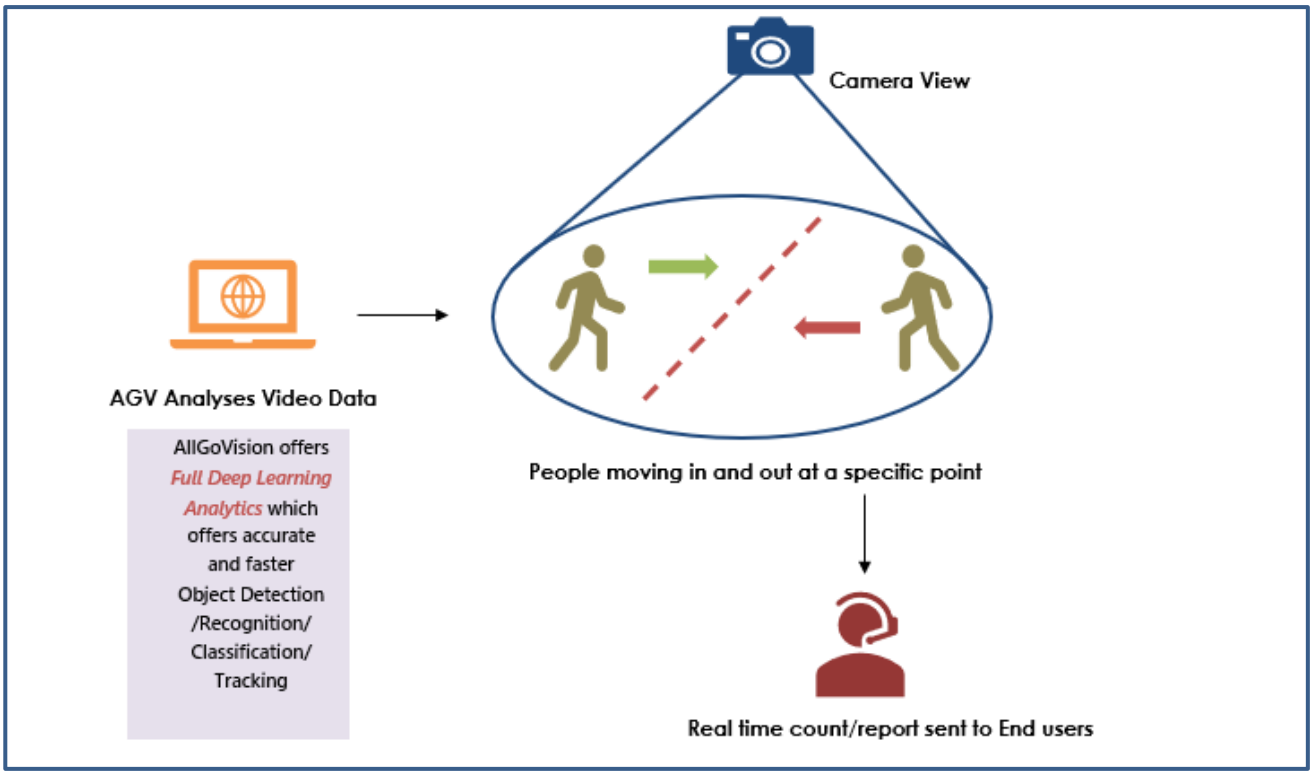
INTRODUCTION

People Counting: The People Counting feature detects the number of people traversing a certain passage and provides traffic-flow measurement with real-time or periodic reporting as per user specifications. This feature can be easily installed and integrated with existing infrastructures and produce precise people counts with high accuracy. Thanks to the instant, real-time people count data, end-users can easily monitor traffic, calculate footfall patterns, analyse conversion ratios, and increase customer experience by optimizing the building layout and staffing levels. Common applications are in retail, transportation, and BFSI segments where business owners want to enhance operational efficiency and profitability.

Deep Learning: A subset of Artificial Intelligence, Deep Learning technology exposes machines to high volumes of tagged data. The machine is then tasked to 'learn', 'analyse', and 'detect' the same information in new datasets which ensures more proficient detection and identification of objects. Since Deep Learning technology is also powered by robust hardware infrastructure, the analytic output is better and faster.

Use of Deep Learning in People Counting: The use of Deep Learning for People Counting brings it closer to human perception. Advanced Deep Learning methods can assess large datasets of moving objects and the layered filters can take the minutest details into account. This increases the degree of accuracy in generating people counts. Thanks to the technology's improved processing performance and superior object classification capabilities, it can efficiently detect and identify multiple object types with low visual biasing and false alarms.



AllGoVision People Counting Flow

SYSTEM REQUIREMENTS

AllGoVision analytics has the following system hardware and software requirements.

CATEGORY	REQUIREMENT
Operating System	Ubuntu server 18.4, Windows Server 2016, Windows Server 2019
Network	Ethernet, 1GB or higher recommended
Hardware Requirements	x86_64 Platform, AVX 2 Support 6th Gen and above + Nvidia GPU
Frame Rate	Frame Rate > 10 fps
Database	Maria DB (X64) 10.3.13.0
Stand Alone version camera support	Camera Models from Axis, Pelco, Bosch, Hikvision, Honeywell, IQinvision, Sony, Dahua, Panasonic, Brickcom, Indigovision, Cisco, Samsung, Acti, Digital Watchdog, and others (ONVIF Cameras).
VMS Support	Honeywell DVM, Honeywell Maxpro, Milestone, Genetec, IndigoVision, ExacqVision, Cognyte (Verint), Bosch, Network Optix Note: With VMS all cameras supported by VMS will be supported
Reporting & Analysis Software	AllGoVision Alarm Center

INSTALLATION

The software is easy to install and simple to use with intuitive GUI. The AllGoVision people counting supports counting of people traversing a certain passage.

Camera Installation Scenario

It supports 2 types of camera installations:

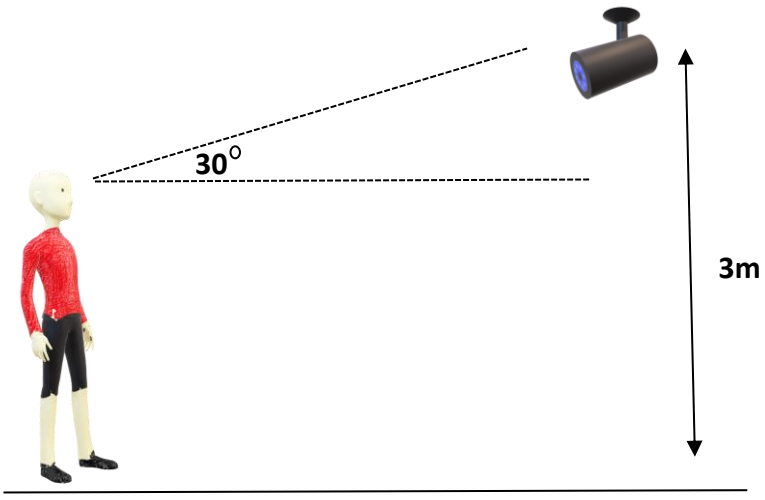
- **Angular**: For applications like city surveillance to cover wider area (up to 30 degrees Angular Placement is possible).
- **Overhead**: For the installation like in entry/exit points. Minimum height should be 9 feet. The width coverage is typically 0.8 times the height*

  * The exact width depends on the camera model and setup. The above ratio is just a general approximation.

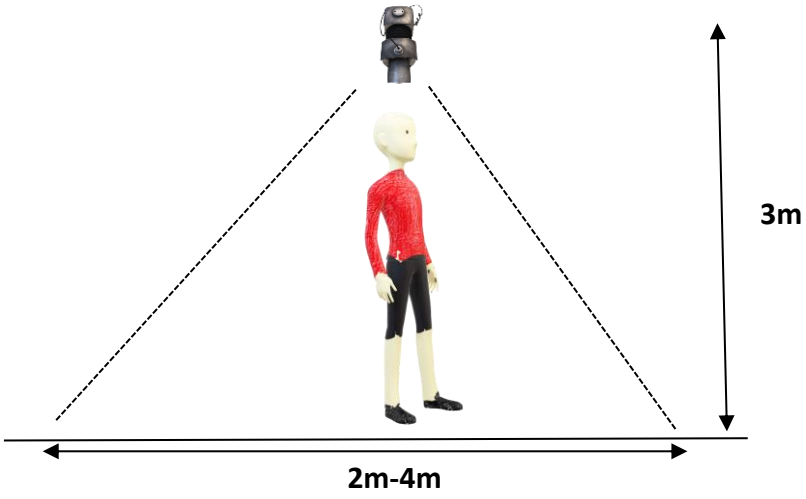
The application is integrated with advanced Auto Report E-mailer. The application facilitates in generating and exporting the Text, Graphical Reports.

- **Environment**: Indoor or Outdoor

Angular Camera



Overhead Camera



TECHNICAL HIGHLIGHTS

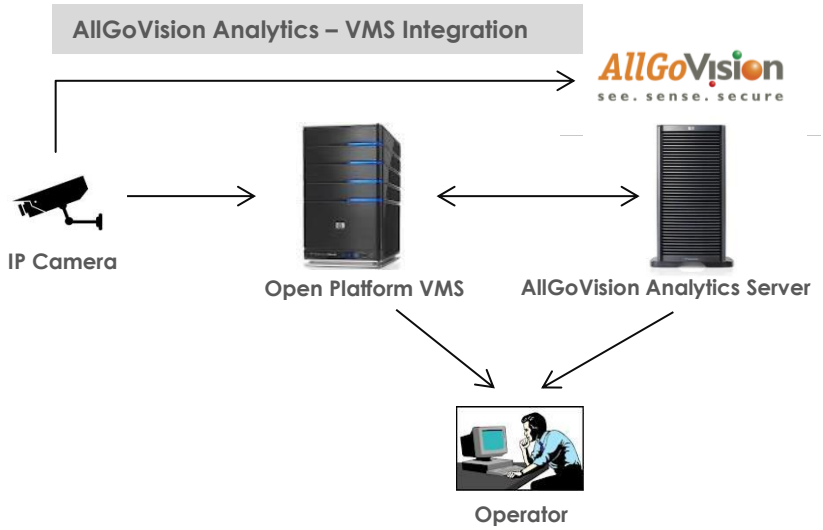
- ✓ People counting report generation
- ✓ Auto emailer for reports
- ✓ Schedule of reports
- ✓ FTP upload of reports
- ✓ Comparison reports
- ✓ Zonal counting (adding many cameras to zone)

INTEGRATION FLEXIBILITY

AllGoVision People Counting application is available in 2 flavours:

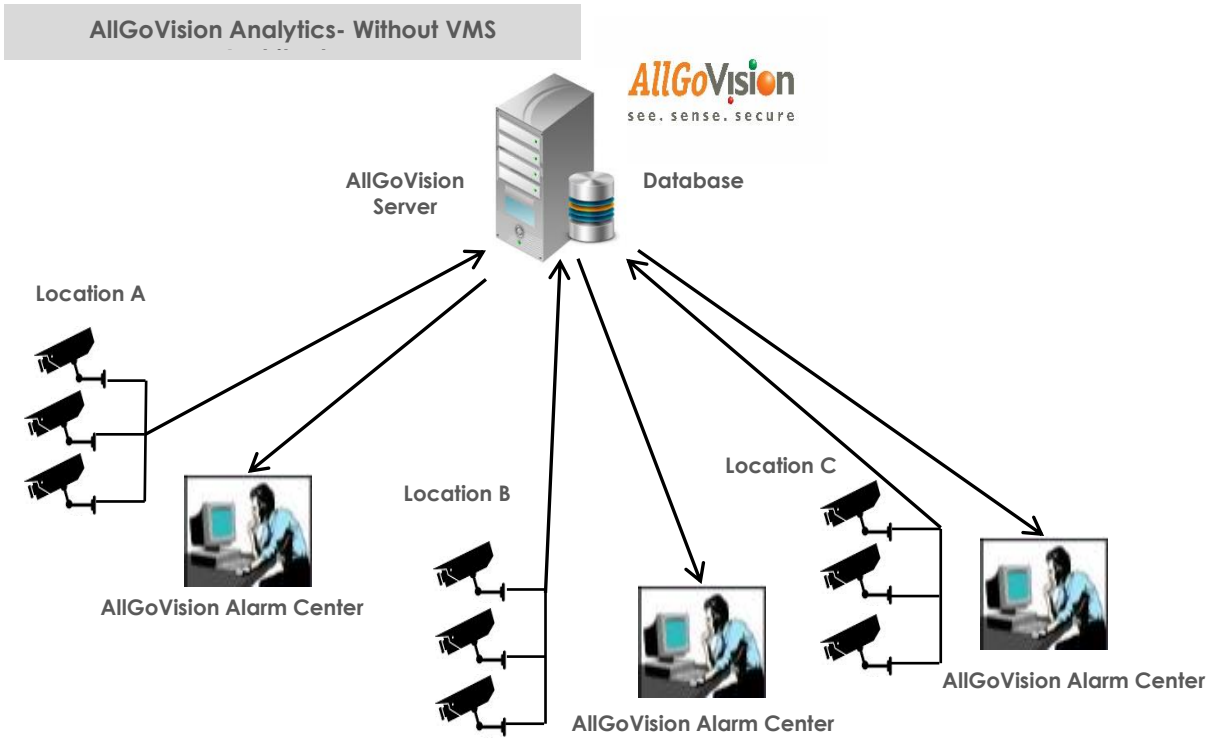
With VMS:

AllGoVision application is based on Open Platform Standards.
It is integrated with many open platform VMS.



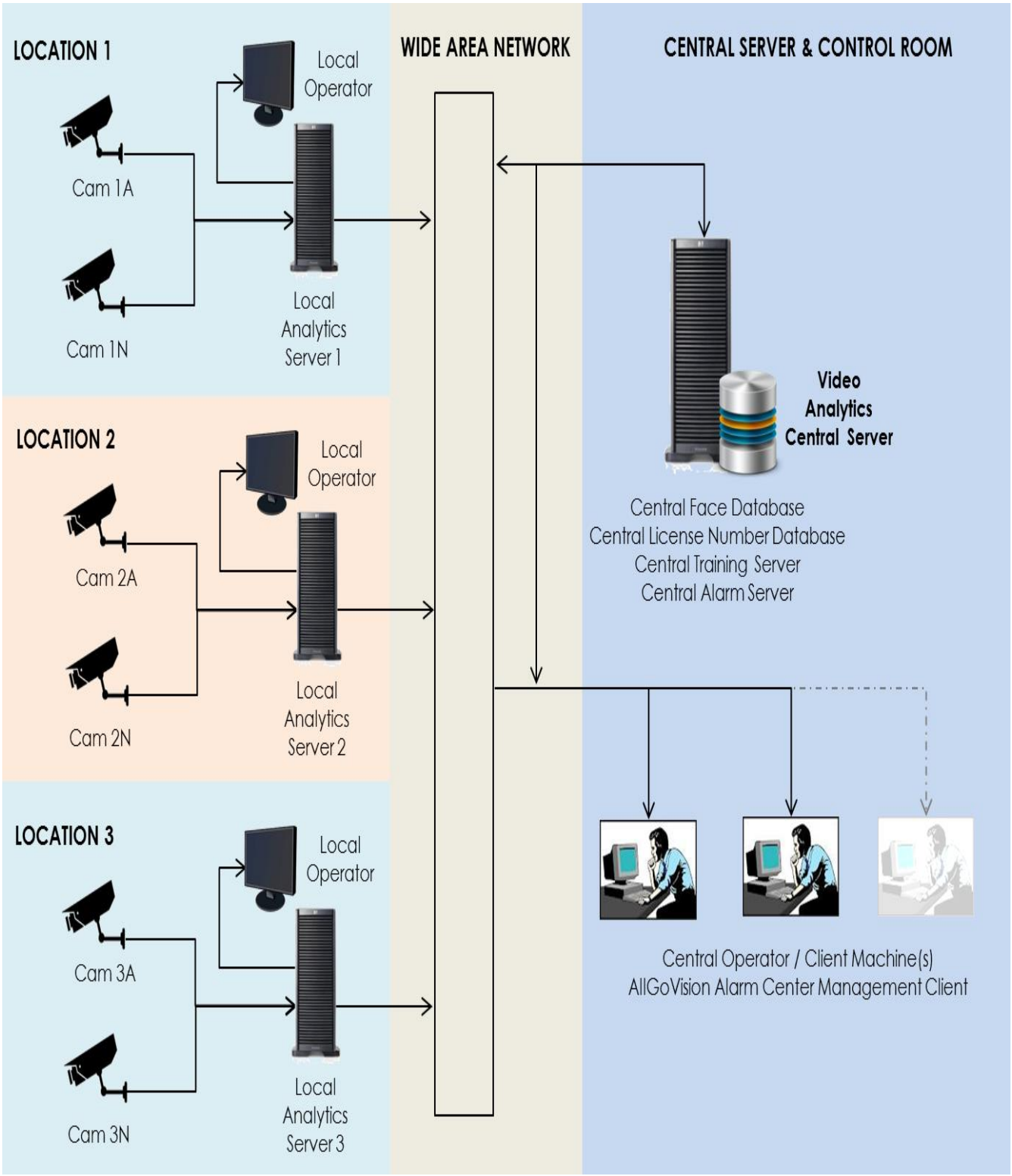
Without VMS:

- It is a standalone application.
- Directly takes the video feed from camera.
- The alarms and reports are seen in AllGoVision Alarm Center.



Federated Architecture

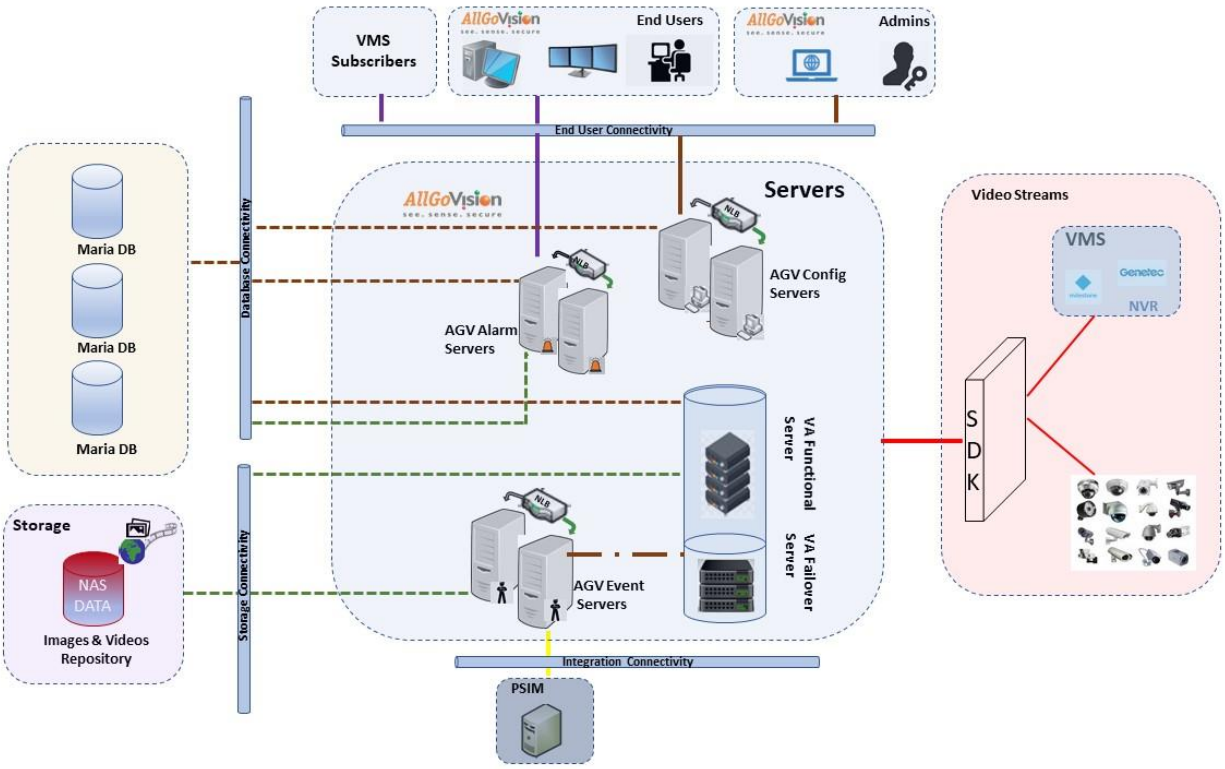
- With Federated Architecture, analytics can be done at local servers and viewed by local operators.
- A central server with a central operator can view all the alarms in the system generated by all the local servers.
- Alarms from different clients can be seen at the central Alarm Center and alarms are differentiated through Client IDs.


LOCATION 1
Local Operator
Cam 1A
Cam 1N
Local Analytics Server 1
WIDE AREA NETWORK
CENTRAL SERVER & CONTROL ROOM
Video Analytics Central Server
Central Face Database
Central License Number Database
Central Training Server
Central Alarm Server
LOCATION 2
Local Operator
Cam 2A
Cam 2N
Local Analytics Server 2
LOCATION 3
Local Operator
Cam 3A
Cam 3N
Local Analytics Server 3
Central Operator / Client Machine(s)
AllGoVision Alarm Center Management Client

Redundancy / Failover

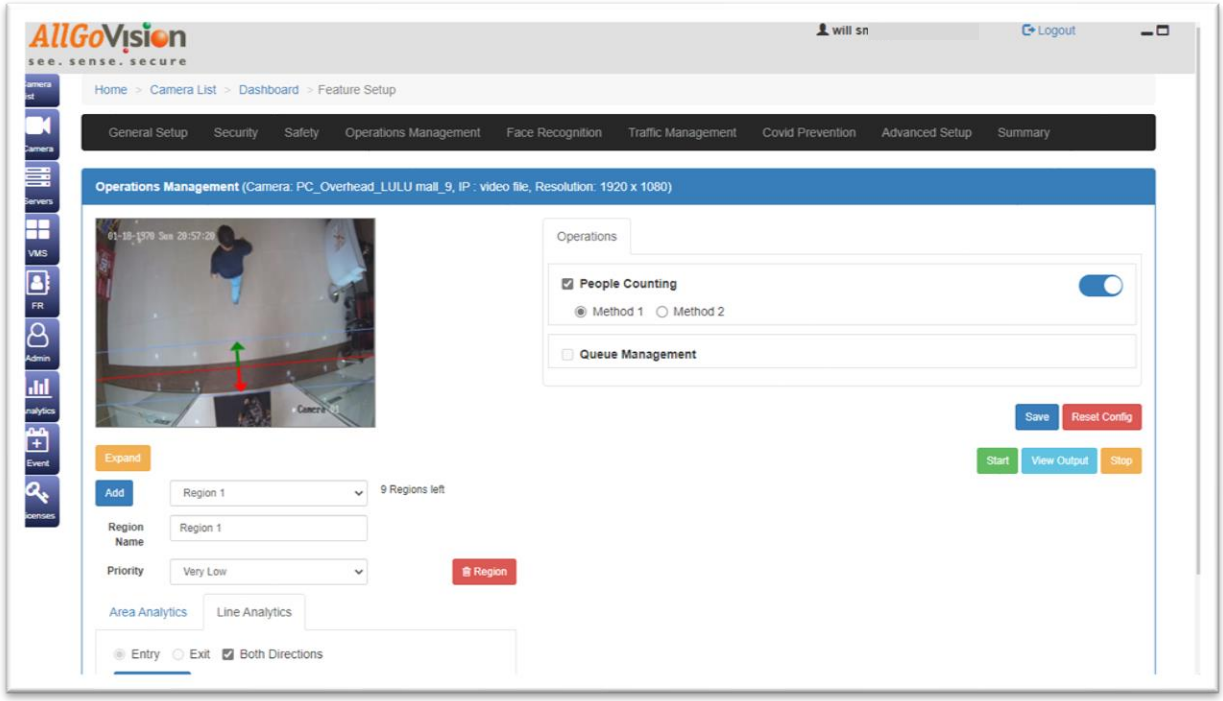
- Config Server can be setup for active/passive redundancy. NLB is used to manage the Active/Passive redundancy. When the active Config Server is up, all requests will be serviced by it. Only when it is down, requests are serviced by the passive Config Server.

- For video analytics, redundancy is achieved by having redundant server capacity for N:1 or 1:1 redundancy. When one or more VA Servers fail, the analytics pertaining to the cameras running in that server are re-assigned to a pre-designated set of servers.

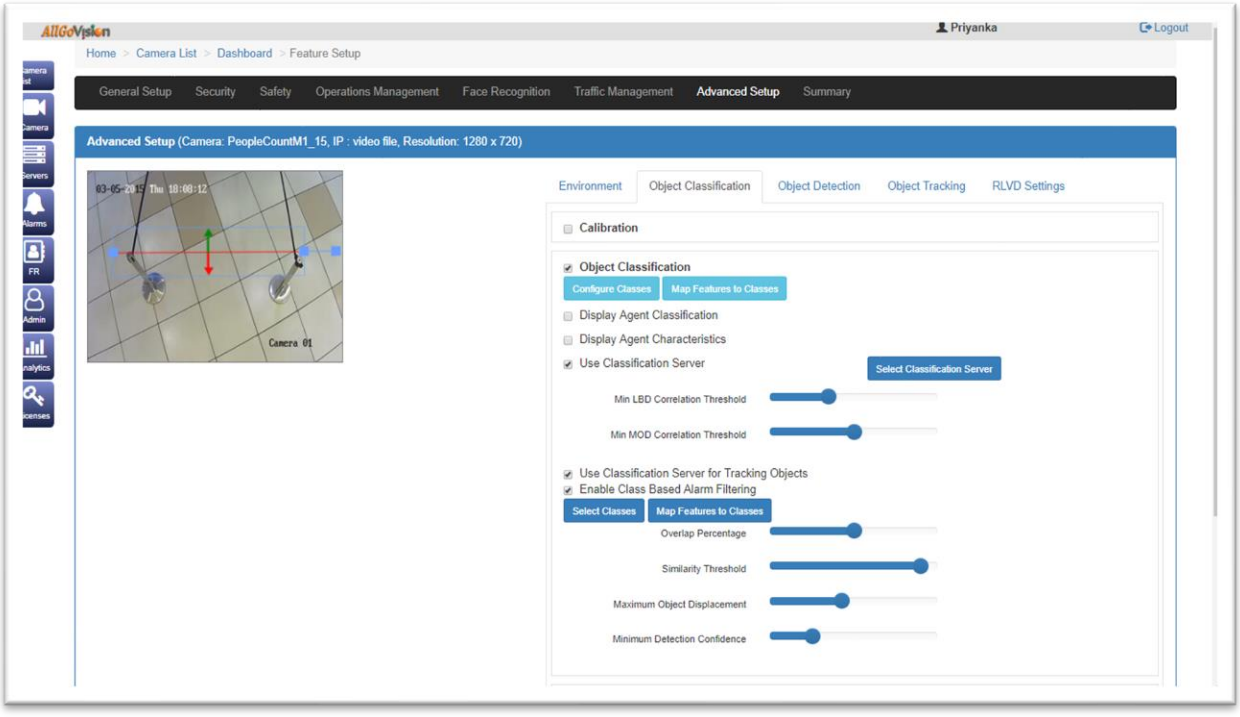


ALLGOVISION GUI

AllGoVision product offers a graphical user interface with the choice of native windows-oriented, tab based, point and pick interface along with the Web UI. The options are provided to add cameras directly or from VMS, provide configuration and view alarms whenever event happens.



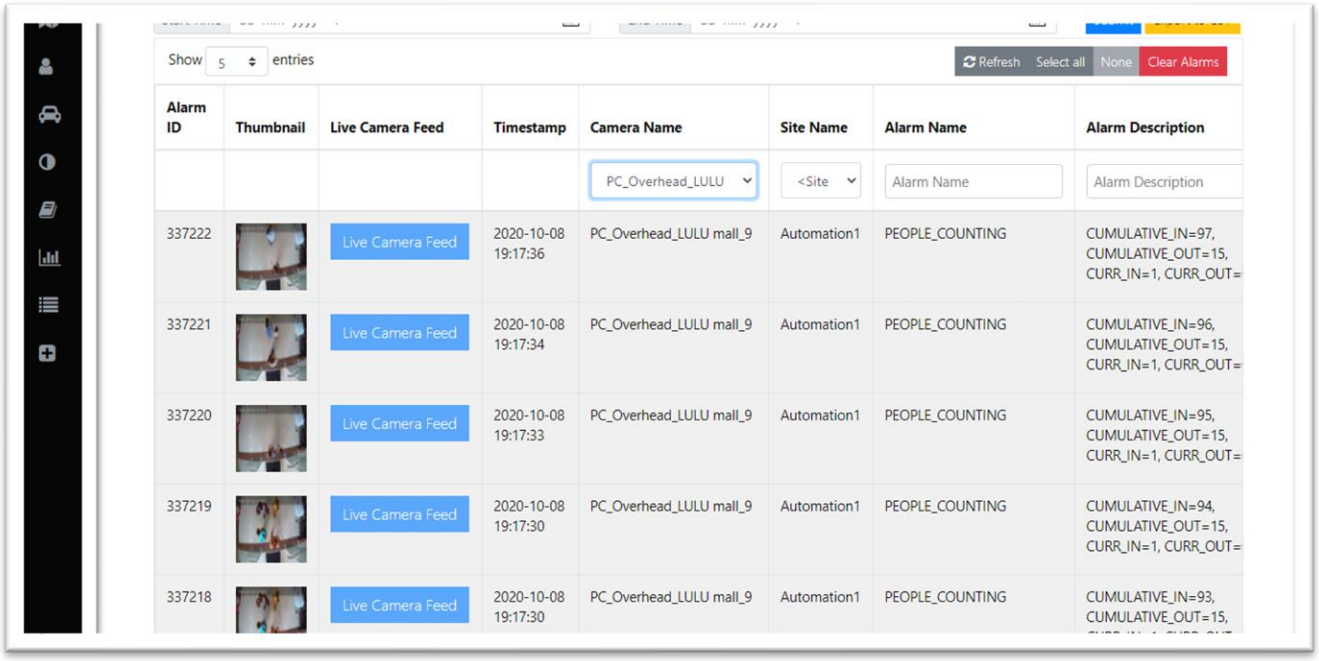
AllGoVision People Counting



People Counting setup

ALLGOVISION ALARM CENTER

AllGoVision Alarm Center is a Client to view all the alarms generated by AllGoVision analytics running on the same machine or running on the different systems in the same network. It also supports report generation.



People Counting Alarms in Alarm Center