



# Milesight Video Content Analysis

Value-added function Caters for All of your needs

A Milesight Technology Moment



## Introduction

The rapid development of security industry calls for the need of a more intelligent video monitoring. For the reason that a massive amount of video is being recorded, but hardly ever being reviewed, it is ordinary to miss suspicious behaviors. To avoid such events and activities being missed, Milesight propounds intelligent Milesight Video Content Analysis (VCA), an embedded application for the whole Milesight Network Camera series.

## What is Video Content Analysis?

Video Content Analysis (VCA), also referred to Intelligent Video Analysis (IVA), is the capability of automatically analyzing video to detect and determine temporal and spatial events. The algorithms can be implemented as software on general purpose machines or as hardware in specialized video processing units. It automatically performs an analysis of captured video, and automatically uses the resultant data. This technical capability is used in a wide range of fields including entertainment, health-care, retail, automotive, transport, home automation, safety and security.

## Milesight Video Content Analysis

Milesight VCA provides advanced, accurate smart video analysis for Milesight network cameras. It enhances the performance of network cameras through 10 detection modes, enabling the comprehensive surveillance function and quicker response of cameras to different monitoring scenes.



Region Entrance



Region Exiting



Advanced Motion Detection



Tamper Detection



Line Crossing



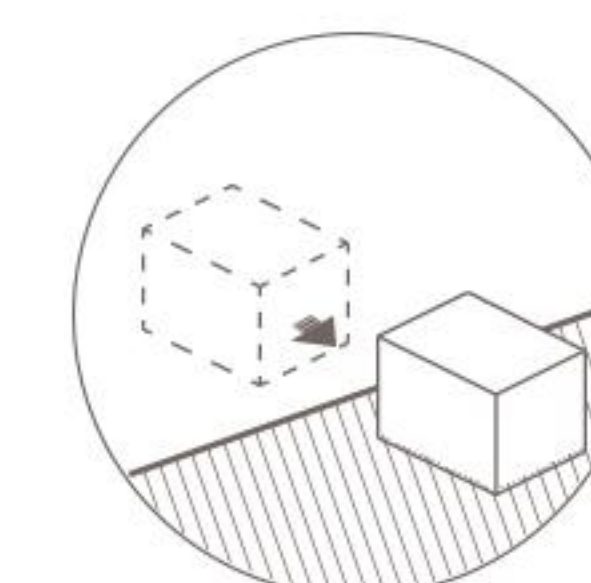
Loitering



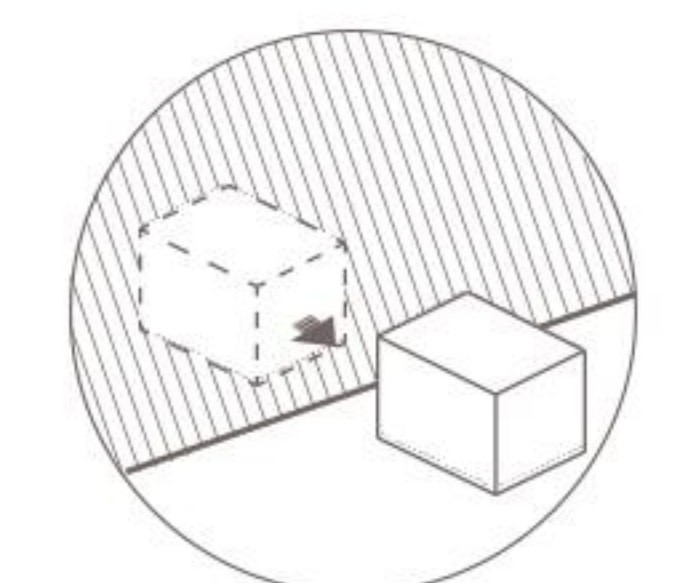
Human Detection



People Counting



Object Left



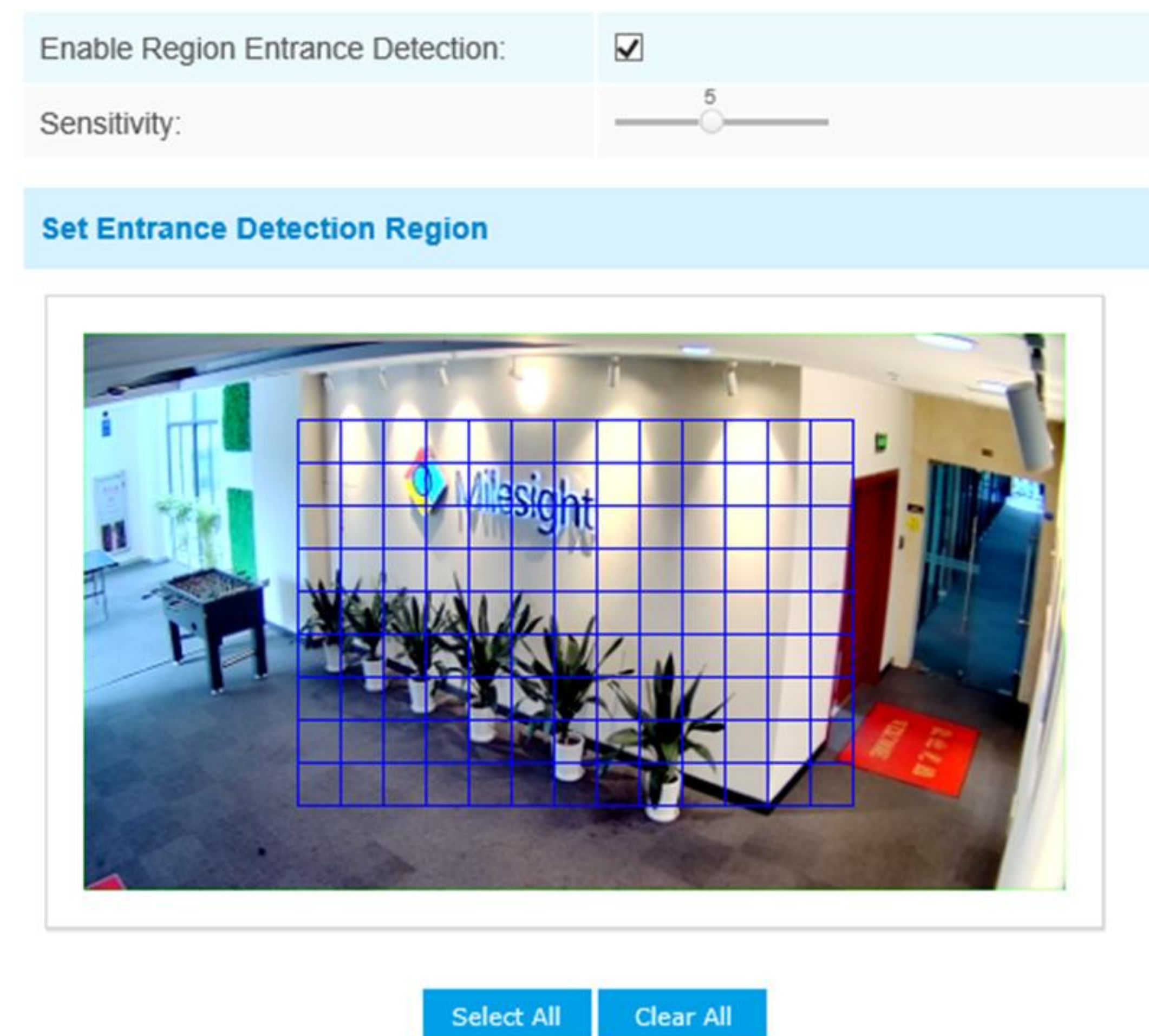
Object Removed



# 1. Region Entrance

## What is Region Entrance

Region Entrance helps to protect a special area from potential threat of suspicious person's or object's entrance. An alarm will be triggered when objects enter the selected regions by enabling region entrance.

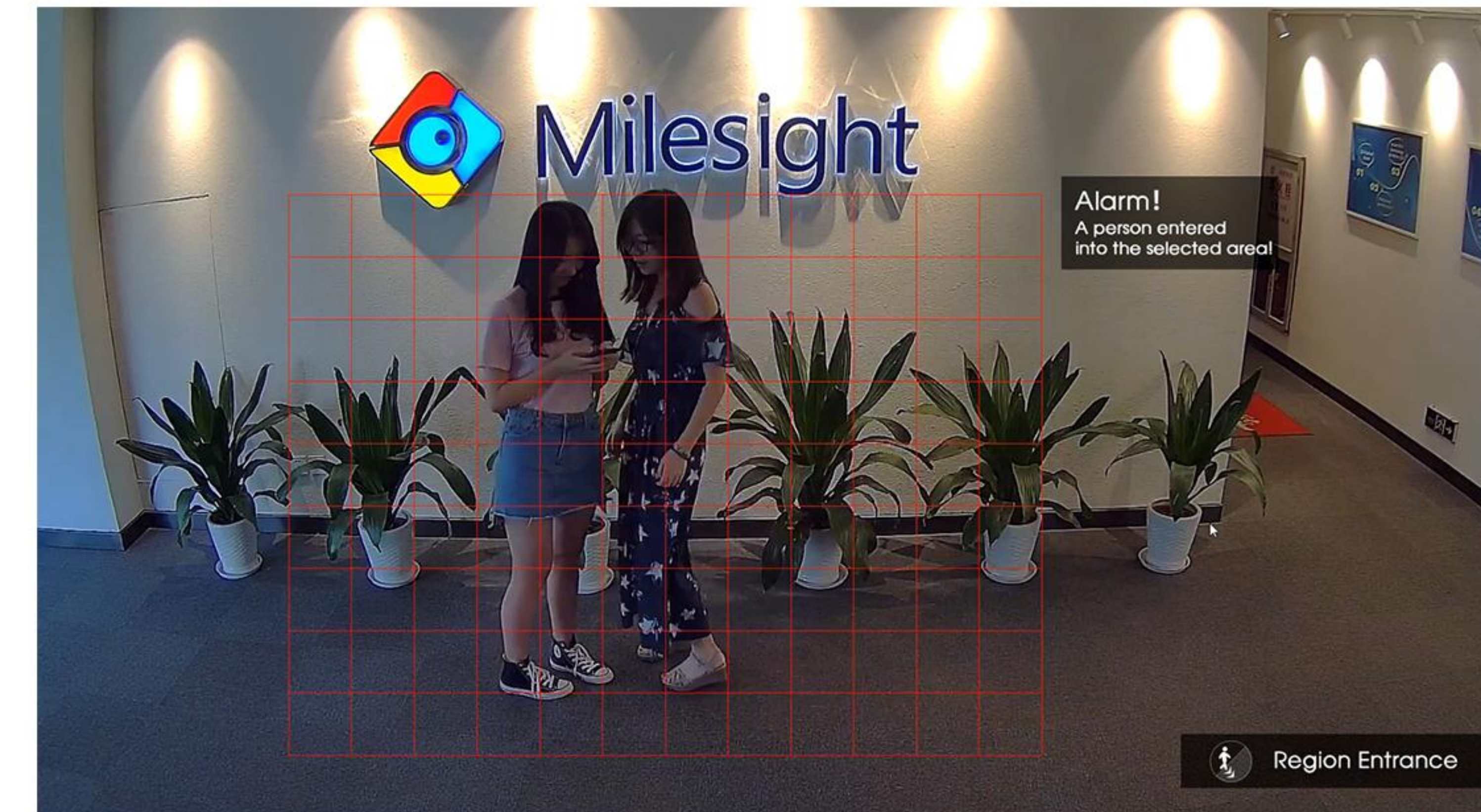


Note: Please draw the screen for setting!

# 2. Region Exiting

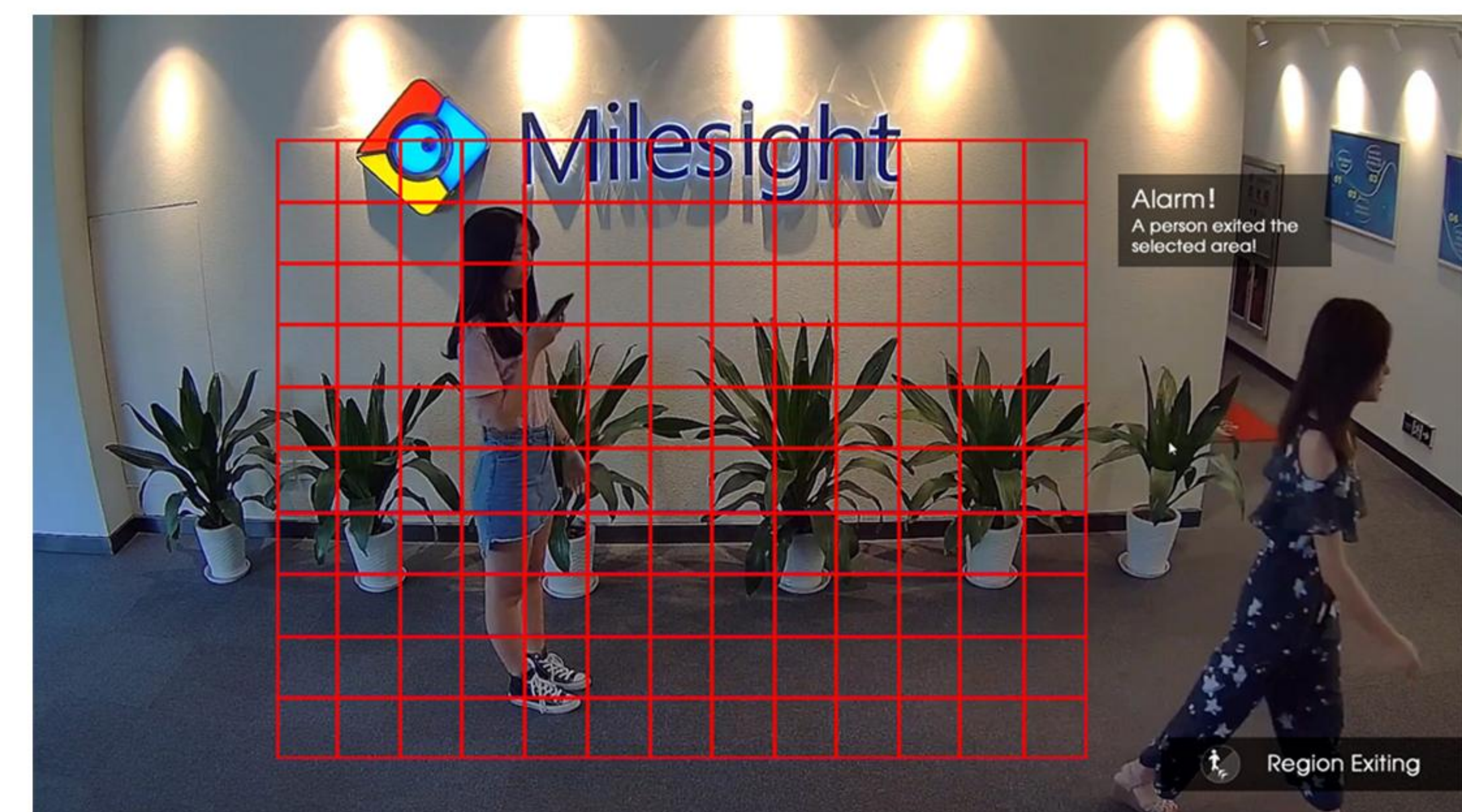
## What is Region Exiting

Region Exiting is to make sure that any person or object won't exit the area that is being monitored. Any exiting of people or objects will trigger an alarm.



## How to set Region Entrance

Enable Region Entrance Detection and draw a region by clicking the mouse. Any object enters into the region will trigger an alarm. Sensitivity Range for an object, which can trigger the alarm, is 0-10. The higher the sensitivity number, the easier it is to detect the target object.





## How to set Region Exiting

Enable Region Existing Detection and draw a region by clicking the mouse. Any object which exits the region will trigger an alarm. Sensitivity Range for an object, which can trigger the alarm, is 0-10. The higher the sensitivity number, the easier it is to detect the target object.

Enable Region Exiting Detection:

Sensitivity:

### Set Exiting Detection Region



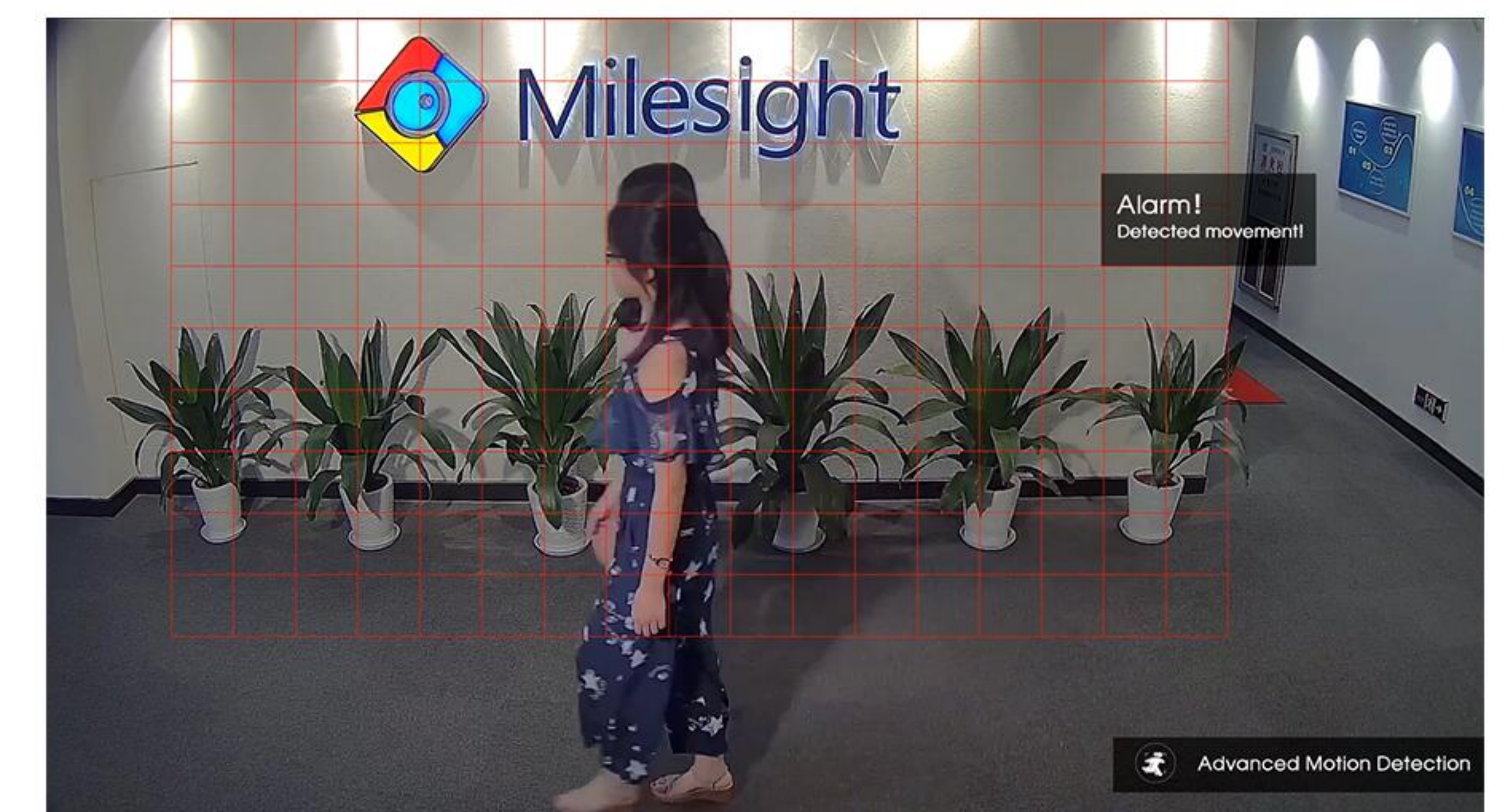
Select All Clear All

Note: Please draw the screen for setting!

## 3. Advanced Motion Detection

### What is Advanced Motion Detection

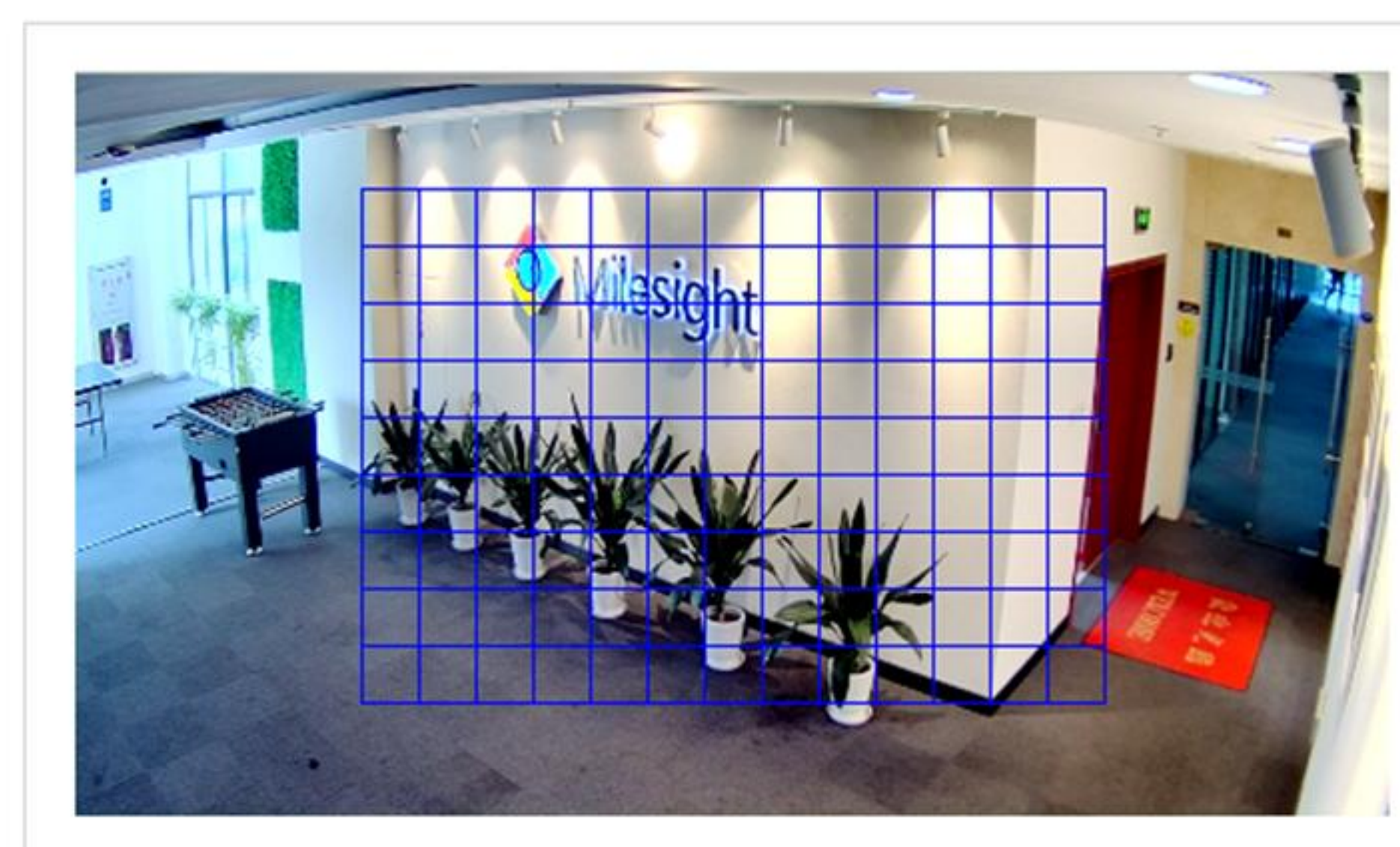
Different from traditional motion detection, Milesight Advanced Motion Detection is a really intelligent one which can filter out “noise” such as lighting changes, natural tree movements, etc. When an object moves in the selected area, it will trigger an alarm.



Enable Advanced Motion Detection:

Sensitivity:

### Set Advanced Motion Detection Region



Select All Clear All

Note: Please draw the screen for setting!

### How to set Advanced Motion Detection

Enable Advanced Motion Detection and draw a region by clicking the mouse. The sensitivity can be configured to detect various movement according to different requirements. Sensitivity Range for an object, which can trigger the alarm, is 0-10. The higher the sensitivity number, the easier it is to detect the target object.



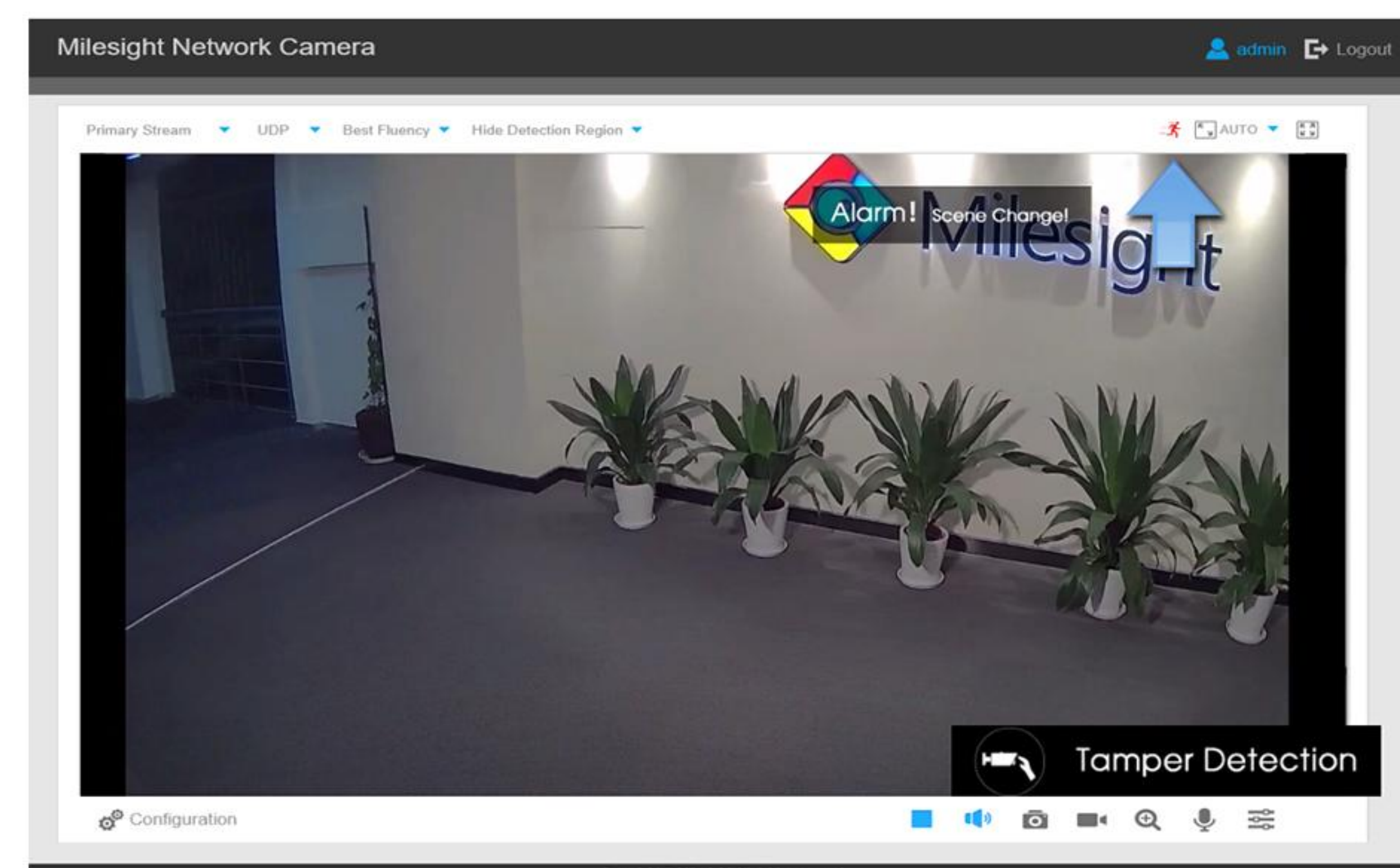
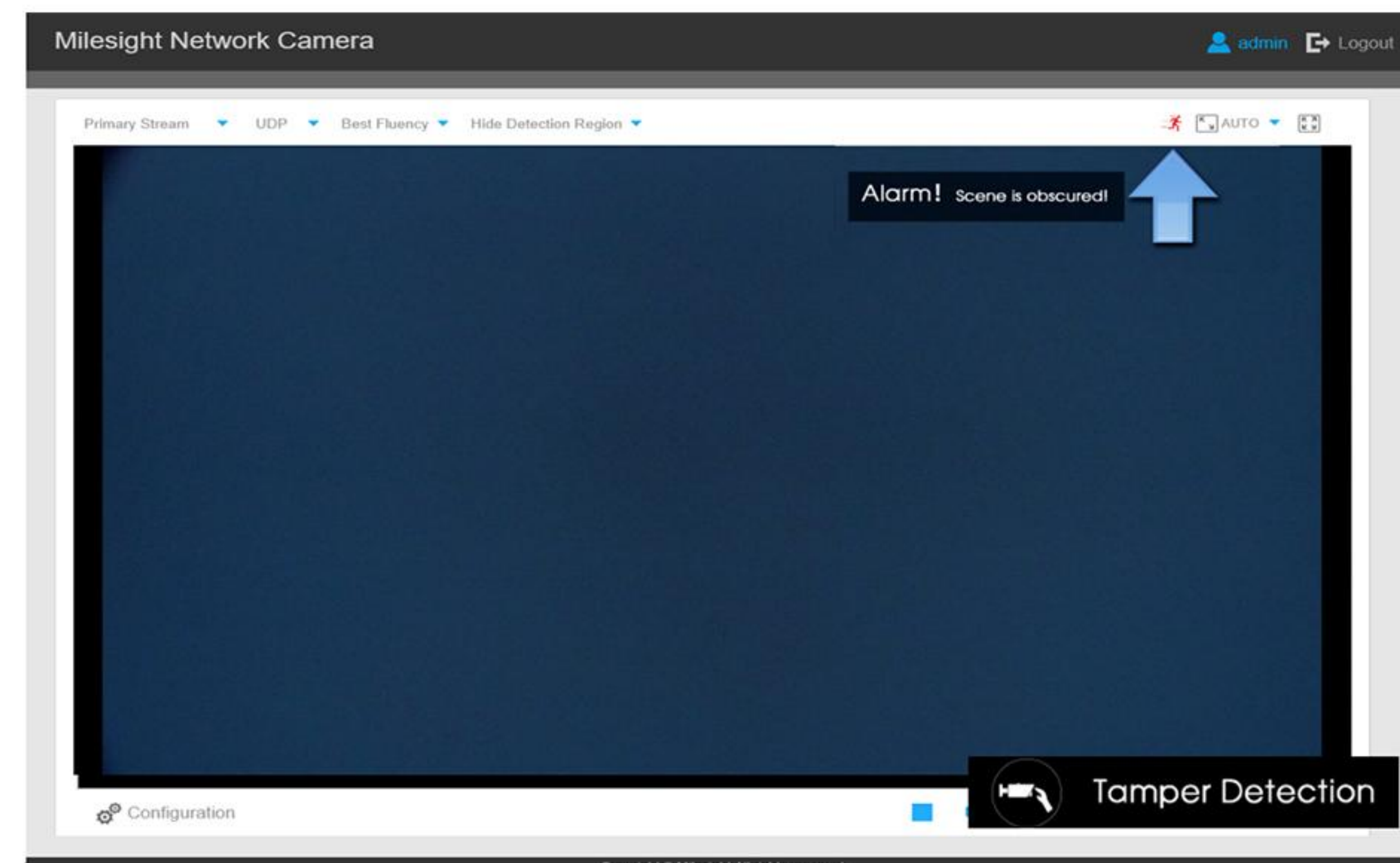
## 4. Tamper Detection

### What is Tamper Detection

Tamper Detection is used to detect possible tampering like the camera being obstructed or moved. This functionality alerts security staff immediately when any above-mentioned actions occur. Support Defocus Detection in Tamper Detection. Defocus Detection, when the lens is unfocused/out-of-focus, it will trigger the Tamper Detection alarm.

### How to set Tamper Detection

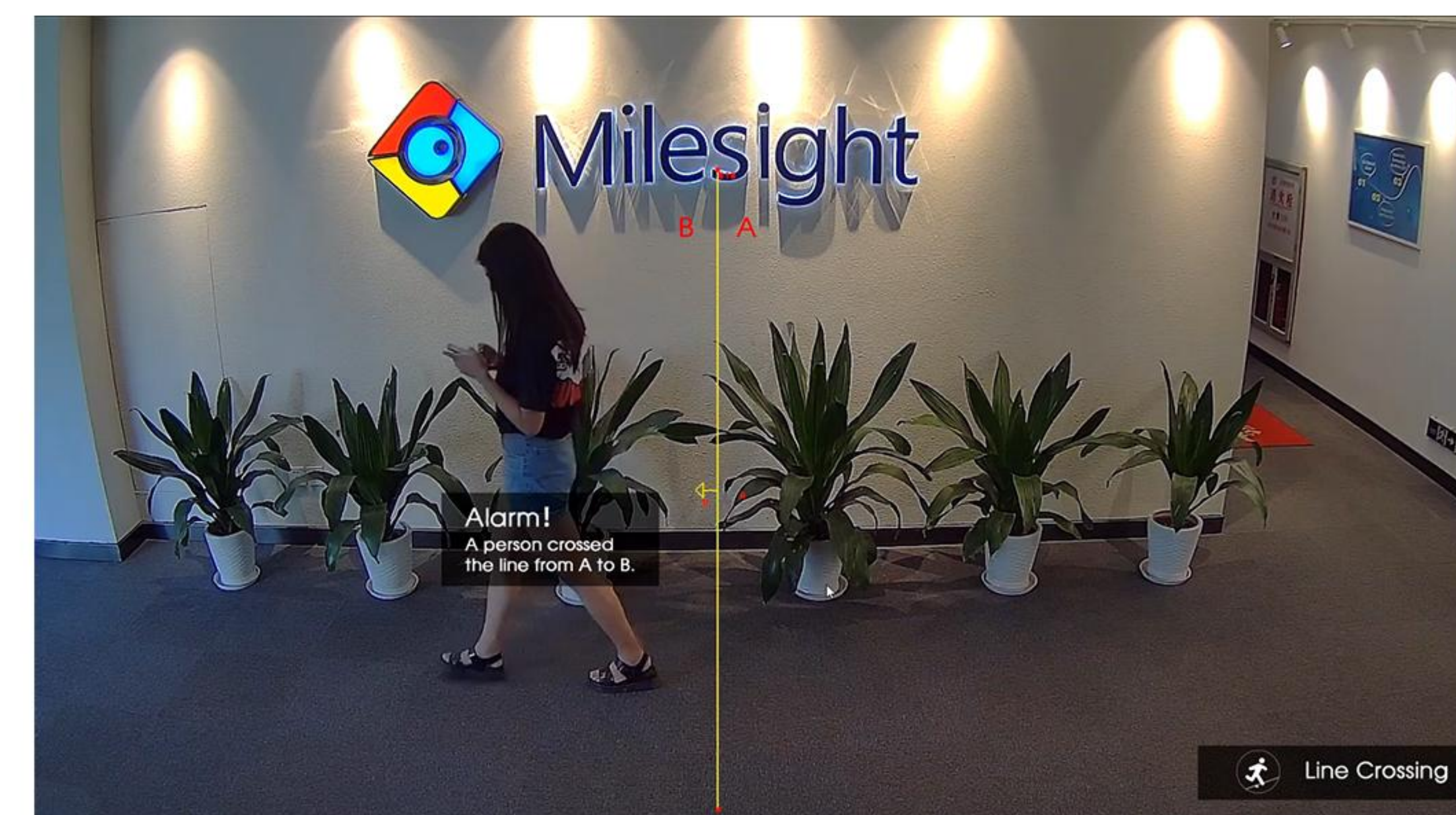
Enable Tamper Detection. Sensitivity Range for an object, which can trigger the alarm, is 0-10. The higher the sensitivity number, the easier it is to detect the target object.



## 5. Line Crossing

### What is Line Crossing

Line Crossing is designed to work in most indoor and outdoor environment. An event will be triggered every time when the camera detects objects crossing a defined virtual line. It is especially suitable for general monitoring of entrance and exit points in low-traffic areas, detecting objects that cross the defined virtual line.





## How to set Line Crossing

Enable Line Crossing Detection. Click the mouse to draw a line in the monitoring view. Milesight allows to set up to four lines at a time. There are three direction modes to choose for triggering alarm. "A→B" means when there is any object crossing the line from the "A" side to the "B" side, the alarm will be triggered. "B→A" vice versa. "A↔B" means that the alarm will be triggered when objects cross line from either side. Sensitivity Range for an object, which can trigger the alarm, is 0-10. The higher the sensitivity number, the easier it is to detect the target object.

Line Crossing:	1
Enable Line Crossing Detection:	<input type="checkbox"/>
Direction:	A->B
Sensitivity:	5

Set Detection Lines

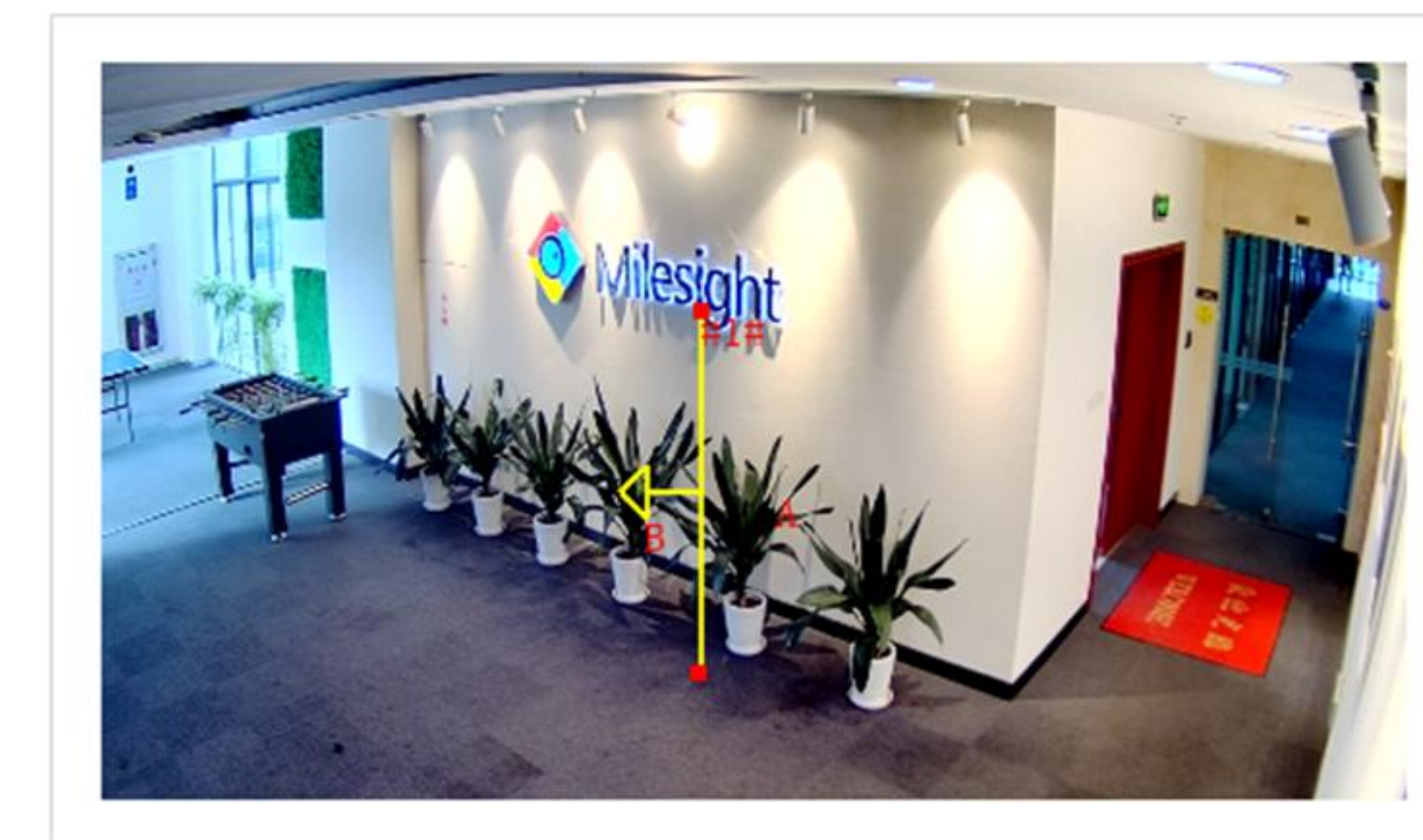


Clear Line

Note: Please draw the screen for setting!

Line Crossing:	1
Enable Line Crossing Detection:	<input checked="" type="checkbox"/>
Direction:	A->B
Sensitivity:	5

Set Detection Lines



Clear Line

Note: Please draw the screen for setting!

## 6. Loitering

### What is Loitering

When objects are loitering in a defined area for a specific period of time, it would trigger an alarm. Illegal activities towards the places like retail stores and banks would be nipped in the bud thanks to this function.





## How to set Loitering

Enable Loitering Detection and draw an area in the view. After setting minimum loitering time from 3s to 1800s, any object loiters in the selected area over the minimum loitering time will trigger the alarm.

Enable Loitering Detection:	<input checked="" type="checkbox"/>
Min. Loitering Time:	<input type="text" value="7"/> (3~1800) s

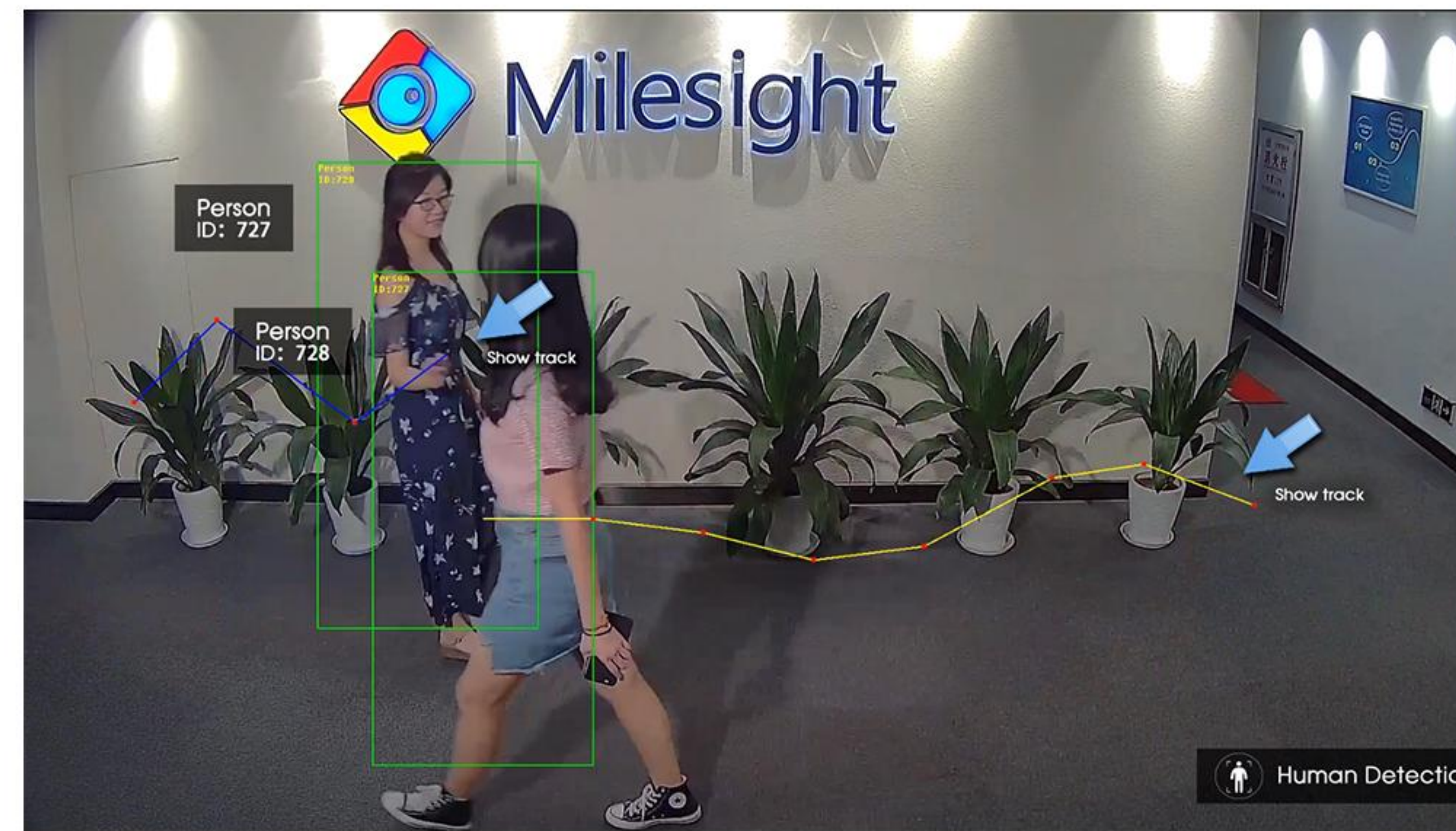
### Set Loitering Detection Region



Select All Clear All

Note: Please draw the screen for setting!

## 7. Human Detection



## How to set Human Detection

Enable Human Detection. When there is an object appearing in the detecting area, an ID will show on the frame. If the object is a person, it will mark as "person". When the Show Tracks is enabled, the tracks of the moving object will show on the screen.

## What is Human Detection

Human Detection is used for figuring out whether an object is a human or not. When Human Detection is enabled, the camera will figure out objects automatically and it can trigger an alarm when needed.

Enable Human Detection:	<input checked="" type="checkbox"/>
Show Tracks:	<input checked="" type="checkbox"/>

### Human Detection



### Schedule Settings



## 8. People Counting

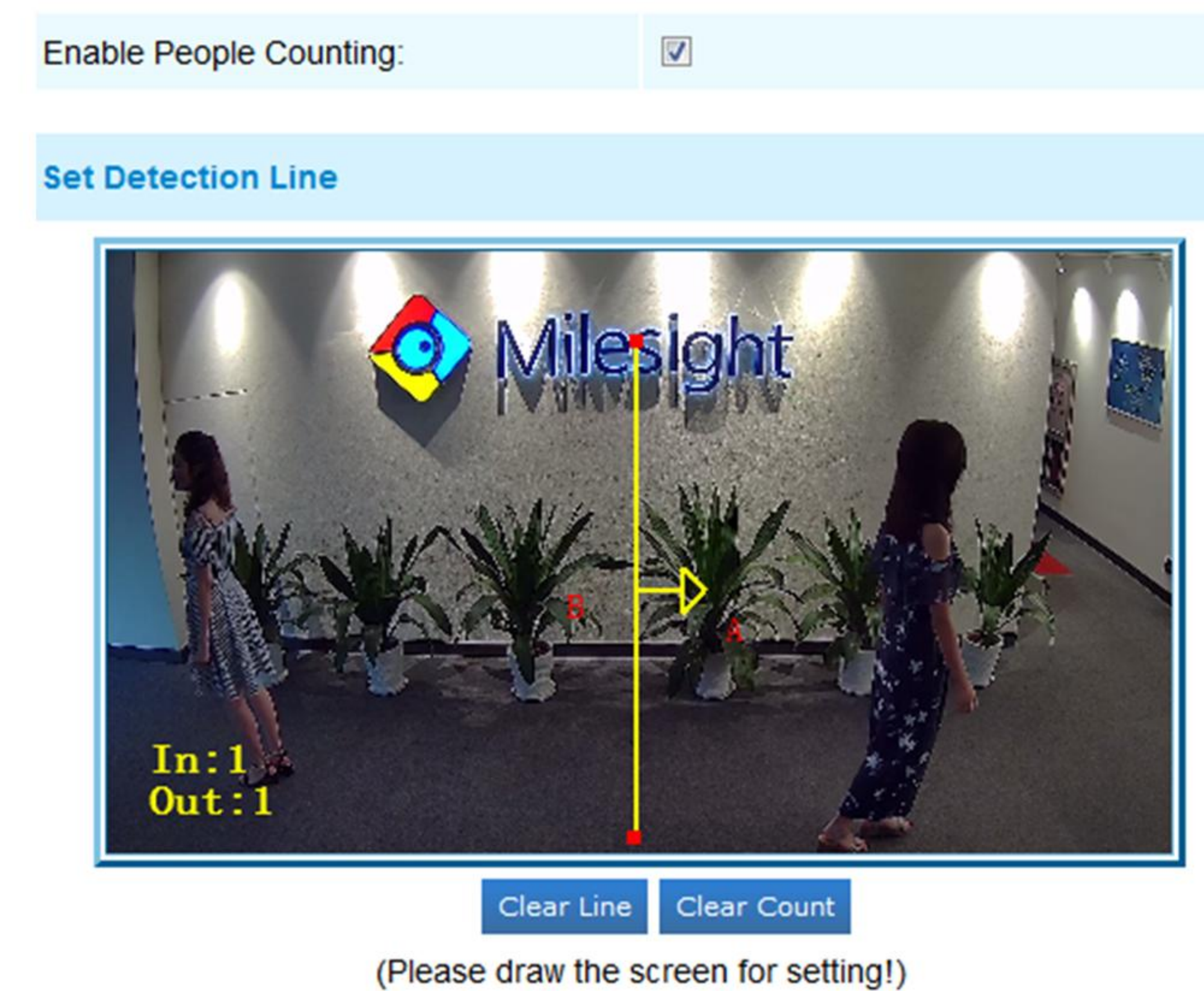
### What is People Counting

People Counting is able to count that how many people enter or exit during the setting period, which can therefore serve multiple purposes - for business intelligence purposes helping retailers to count how many customers came in a day.



### How to set People Counting

To enable People Counting needs to enable Human Detection first. It records the number of people passing through the line automatically. Crossing along the direction of the arrow will record as "In". On the contrary, it will record as "Out".



Also, Milesight People Counting allows to trigger alarm when the thresholds reaches to a certain value. The value ranges from 1 to 9999.

Alarm Trigger	
Enable Alarm	<input checked="" type="checkbox"/>
Thresholds:	<input type="checkbox"/> In: <input type="text" value="9999"/>
	<input type="checkbox"/> Out: <input type="text" value="9999"/>
	<input type="checkbox"/> Capacity: <input type="text" value="9999"/>
	<input type="checkbox"/> Sum: <input type="text" value="9999"/>



## 9. Object Left

### What is Object Left

Object Left is used for checking whether there is something left in the selected area. If there is object left in the pre-defined area, an alarm will trigger.

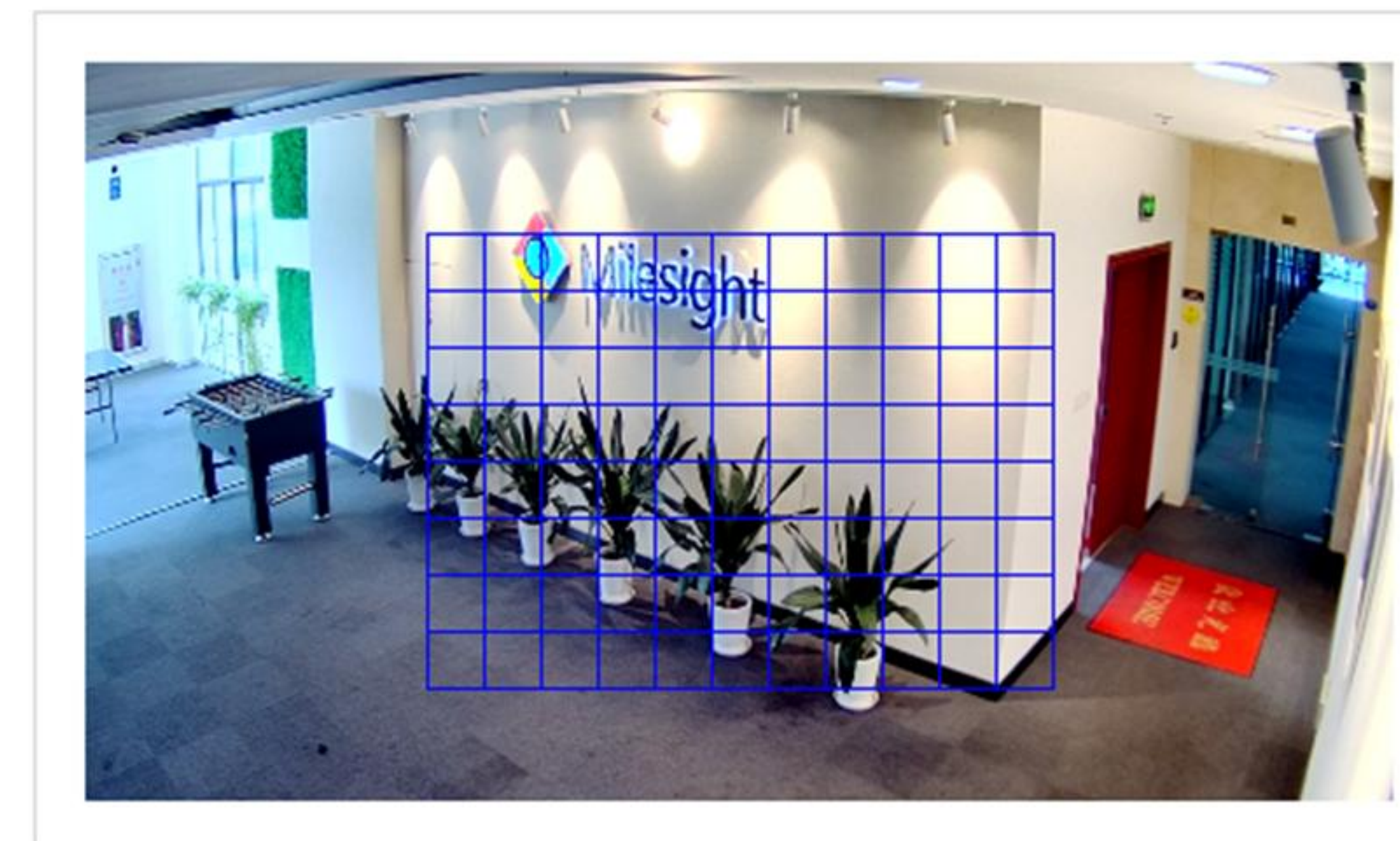


### How to set Object Left

Enable Object Left Detection and draw a region by clicking the mouse. Any object left in the region will trigger an alarm. Sensitivity Range for an object, which can trigger the alarm, is 0-10. The higher the sensitivity number, the easier it is to detect the target object.

Enable Object Left:	<input checked="" type="checkbox"/>
Enable Object Removed:	<input type="checkbox"/>
Min. Time	<input type="text" value="20"/> (10~1800)s
Sensitivity:	<input type="range" value="5"/>

#### Set Detection Region



Select All Clear All

Note: Please draw the screen for setting!



## 10. Object Removed

### What is Object Removed

Object Removed is used to secure objects' safety. When there is an object removed from a pre-defined region, it will detect and prompt an alarm.

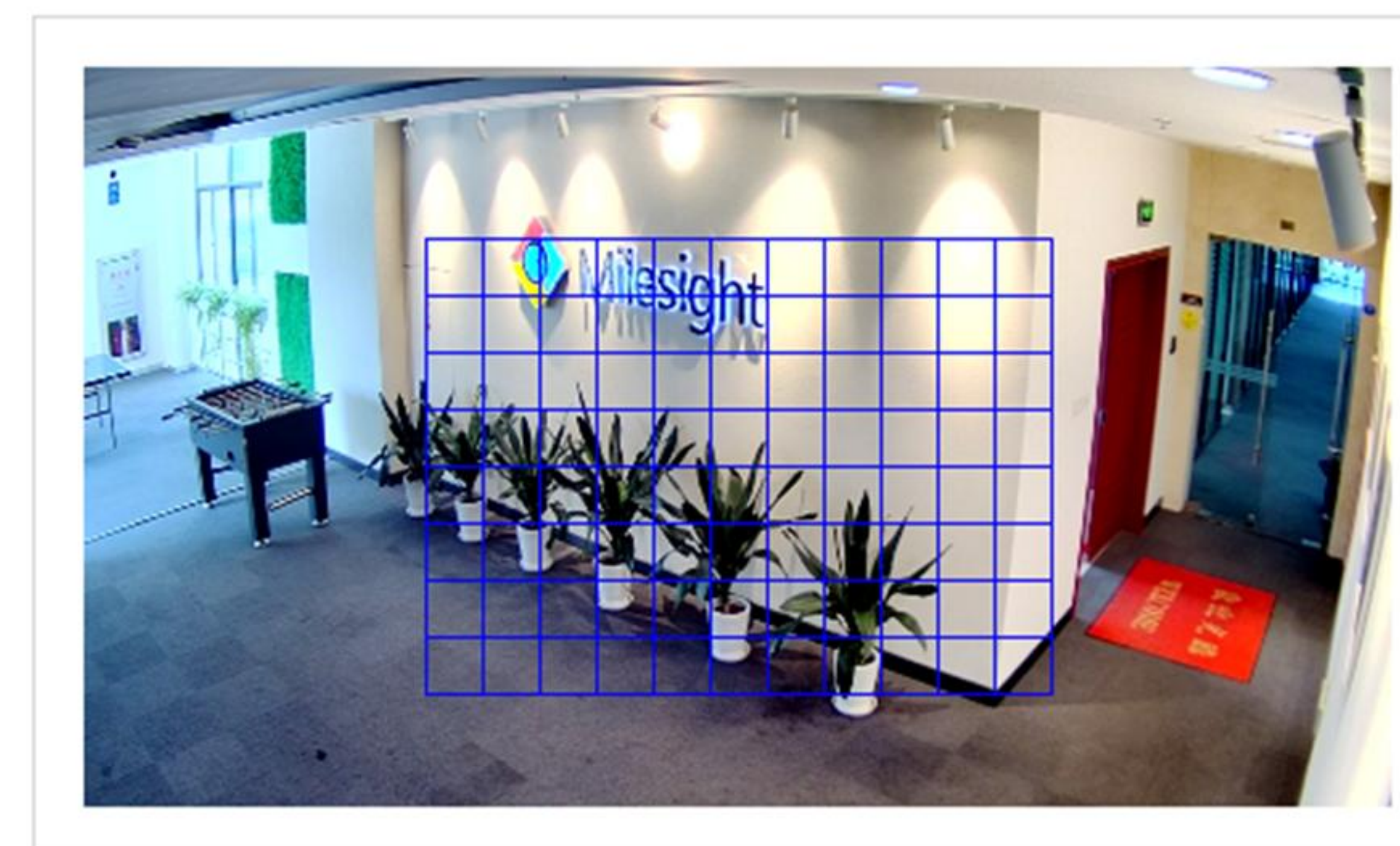


### How to set Object Removed

Enable Object Removed Detection and draw a region by clicking the mouse. Any object removed in the region will trigger an alarm. Sensitivity Range for an object, which can trigger the alarm, is 0-10. The higher the sensitivity number, the easier it is to detect the target object.

Enable Object Left:	<input type="checkbox"/>
Enable Object Removed:	<input checked="" type="checkbox"/>
Min. Time	<input type="text" value="20"/> (10~1800)s
Sensitivity:	<input type="range" value="5"/>

#### Set Detection Region



Select All Clear All

Note: Please draw the screen for setting!



## Note

Milesight VCA provides the primary setting for the whole VCA functions. Min. Size is to set whether an object is big enough to trigger other settings. the frame drawn on the screen means that only if the object size is bigger than the frame, the settings for other VCA functions will take effect. Max. Size means opposite. The frame drawn on the screen stands for that only if the object size is smaller than the frame, the settings for other VCA functions will take effect. The Min. Size and Max. Size can be set for different VCA events.

## Advantages of Milesight Video Content Analysis

- Detect suspicious activities immediately
- Provide pro-active operation
- Reduce workload for the staff
- Automatically analyze surveillance video in real-time

## Conclusion

Milesight VCA embedded in Milesight Network Cameras ensures that video surveillance systems become smarter, more accurate, and more cost-effective. Through the functions, the operator can predefine situation detection which reduce a lot of workload. And the intelligent monitoring application is general as well as specialized for different industries, creating new end user benefits and opening up new business possibilities.



Min. Size:  \*  pixel(1\*1~320\*240)  
 Max. Size:  \*  pixel(1\*1~320\*240)

Note: Please draw the screen or input pixel number for setting!

		Edit		Reset	
<input type="checkbox"/>	Event	Min. Size	Max. Size	Edit	Reset
<input type="checkbox"/>	Region Entrance	3*3	320*240	<input type="text" value="✕"/>	<input type="text" value="Reset"/>
<input type="checkbox"/>	Region Exiting	3*3	320*240	<input type="text" value="✕"/>	<input type="text" value="Reset"/>
<input type="checkbox"/>	Line Crossing	3*3	320*240	<input type="text" value="✕"/>	<input type="text" value="Reset"/>
<input type="checkbox"/>	Loitering	3*3	320*240	<input type="text" value="✕"/>	<input type="text" value="Reset"/>
<input type="checkbox"/>	Human Detection	3*3	320*240	<input type="text" value="✕"/>	<input type="text" value="Reset"/>
<input type="checkbox"/>	People Counting	3*3	320*240	<input type="text" value="✕"/>	<input type="text" value="Reset"/>
<input type="checkbox"/>	Object Left/Removed	3*3	320*240	<input type="text" value="✕"/>	<input type="text" value="Reset"/>



Min. Size:  \*  pixel(1\*1~320\*240)  
 Max. Size:  \*  pixel(1\*1~320\*240)

Note: Please draw the screen or input pixel number for setting!

		Edit		Reset	
<input type="checkbox"/>	Event	Min. Size	Max. Size	Edit	Reset
<input type="checkbox"/>	Region Entrance	3*3	320*240	<input type="text" value="✕"/>	<input type="text" value="Reset"/>
<input type="checkbox"/>	Region Exiting	3*3	320*240	<input type="text" value="✕"/>	<input type="text" value="Reset"/>
<input type="checkbox"/>	Line Crossing	3*3	320*240	<input type="text" value="✕"/>	<input type="text" value="Reset"/>
<input type="checkbox"/>	Loitering	3*3	320*240	<input type="text" value="✕"/>	<input type="text" value="Reset"/>
<input type="checkbox"/>	Human Detection	3*3	320*240	<input type="text" value="✕"/>	<input type="text" value="Reset"/>
<input type="checkbox"/>	People Counting	3*3	320*240	<input type="text" value="✕"/>	<input type="text" value="Reset"/>
<input type="checkbox"/>	Object Left/Removed	3*3	320*240	<input type="text" value="✕"/>	<input type="text" value="Reset"/>

To better use Milesight VCA, the viewing angle of the camera really matters. It is important to install the camera in a suitable position to fully apply these smart detections such as human detection and people counting.



## Milesight Technology

Established in 2011, Milesight Technology is a high-tech company, specializing in design, developing and manufacture of best-in-class AIoT video surveillance solutions including Network Cameras, NVRs, Software and APP with superior image quality, exceptional flexibility and reliability for the global market. Milesight Technology markets its products through a worldwide network of distributors and resellers, offering excellent pre/after-sales and technical support services that exceed customers' expectation.

For more information about Milesight Technology, please visit our website [www.milesight.com](http://www.milesight.com).

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