GANZ
MAXIMIZING
SECURITY
EFFICIENCY
BY LEVERAGING AI ANALYTICS
SEPTEMBER 28TH, 11AM EST

About the Speaker

Brian Denmeade, Field Application Engineer

Brian is our tech guru who knows security products from the inside out. He started off as a technician and is now our AI specialist.

How do we harness the power of AI for maximum efficiency in security?

Data Collection, Analysis, & Monitoring

1

AI systems require a large amount of data to learn from. Collecting diverse and relevant data related to security incidents, threats, and vulnerabilities is crucial.

Machine Learning and Training

AI models need to be trained using the collected data. Machine learning techniques, such as supervised or unsupervised learning, can be applied to train the AI models to recognize and classify different security events, behaviors, or indicators of compromise. The models can learn from historical data and adapt to new and emerging threats.

3 Automation and Response

AI can automate various security processes, such as incident response, threat hunting, or vulnerability management. AI systems can autonomously investigate and respond to security incidents, reducing the time and effort required by human analysts.

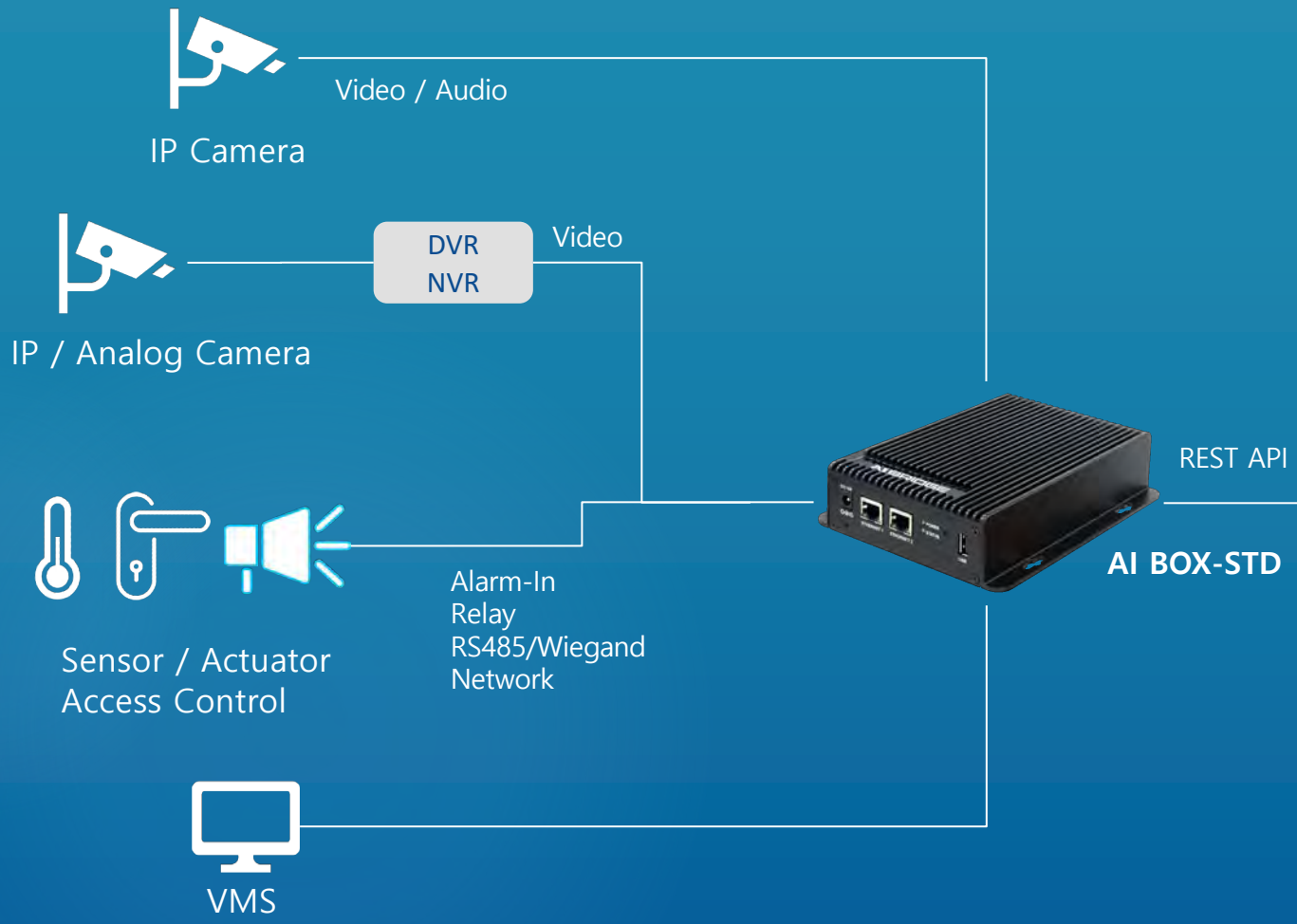
Automated responses can include event notifications, access control lockdowns, or alerting security teams for further investigation.

Predictive Analytics and Threat Intelligence

4

AI can also be used to analyze historical security data and generate predictive analytics. By identifying patterns and correlations, AI models can predict potential future security threats or vulnerabilities.

AI BOX-STD *The Next Generation of AI Convenience*



Action Presets

System
- Relay
- Camera Speaker

Network
- AI Event Agent
- HTTP
- FTP
- Email(SMTP)
- AWS S3
- TCP
- ONVIF

VMS
- NX Plugin
- CORTROL Plugin
- Milestone
- Immix
- Genetec

NVR/DVR
- Sequrinet

Smart Retail

Smart Construction

Smart Building

Smart Factory

Smart Traffic

AI BOX-STD *AI Algorithmic Licenses*

Standard (STD)
Included Licensing Package

Standard Package	Dynamic Privacy Masking
	Basic Attribute (Clothing color) Q4
	Queue Management Beta / Q4
	Standard Heatmap Beta / Q4
	Combined Counter Trigger Q4
	Intrusion
	Loitering
	People counting
	Vehicle counting
	Zone counting
	Virtual fence
	Stopping
	Stay & Go
	Occupancy *(Number People in a building)*

*Preliminary List - APP name or level may be changed

AI BOX-STD *AI Algorithmic Licenses*

Pro License

Optional licensing package

- In addition to the STD licensing package

Pro Package	Crowd Detection
	Advanced Visitor Analysis
	Hand & Foot Intrusion
	Intentional Body Gaze Detector
	Imminent threat
	Fallen Person Detection
	Animal Detection
	Fire & Smoke
	Vehicle Type Counting *(Bus, Truck, Other Cars)*
	Thermal Intrusion Detector
	Drone View Q4
	Fisheye
	Corridor Mode Q4
	Advanced Attribute (Time) Q4

*Preliminary List - APP name or level may be changed

AI BOX-STD *AI Algorithmic Licenses*

Additional Licenses

Optional add-on licenses

- *Per channel options are available*
- *Bulk channel options are available*
  - *In 2 ~ 8Ch bulk options*

Channel Add-on Licensing	LPR US, EU, JP, KR
	Advanced Heatmap Beta / Q4
	No PPE
	Illegal Parking Beta / Q4
	Illegal Dumping Beta / Q4
	Violence Detection Beta / Q4
	PTZ Auto Tracking
	Human Prolonged Stay Beta / Q4
	Abandoned & Removed Object
	Forklift Driver No Helmet

AI BOX-STD 16 Channel extension mode

16Ch extension mode

- Extends standard 8Ch's to 16Ch's

16Ch extension mode incurred costs

- AI resources are halved
- Standard licensing is reduced
- Pro licensing is inaccessible
- Add-on licensing is inaccessible
- Alarm only (No video)

16Ch available AI Applications	
	Intrusion
	Loitering
	Virtual Fence
	Stay & Go
	Stopping Detection
	Zone Counting
	Occupancy Counting
	People Counting
	Vehicle Counting

AI BOX-STD *Cutting-edge Edge AI Technology*

Highly-accurate **object-tracking** technology

High-performance **pose estimation** technology

Reduce false alarms through automatic scene understanding

Multi-faceted, multi-level analysis of **detected objects** and video

AI BOX-STD *Multi-level Analysis of Detected Objects & Video*

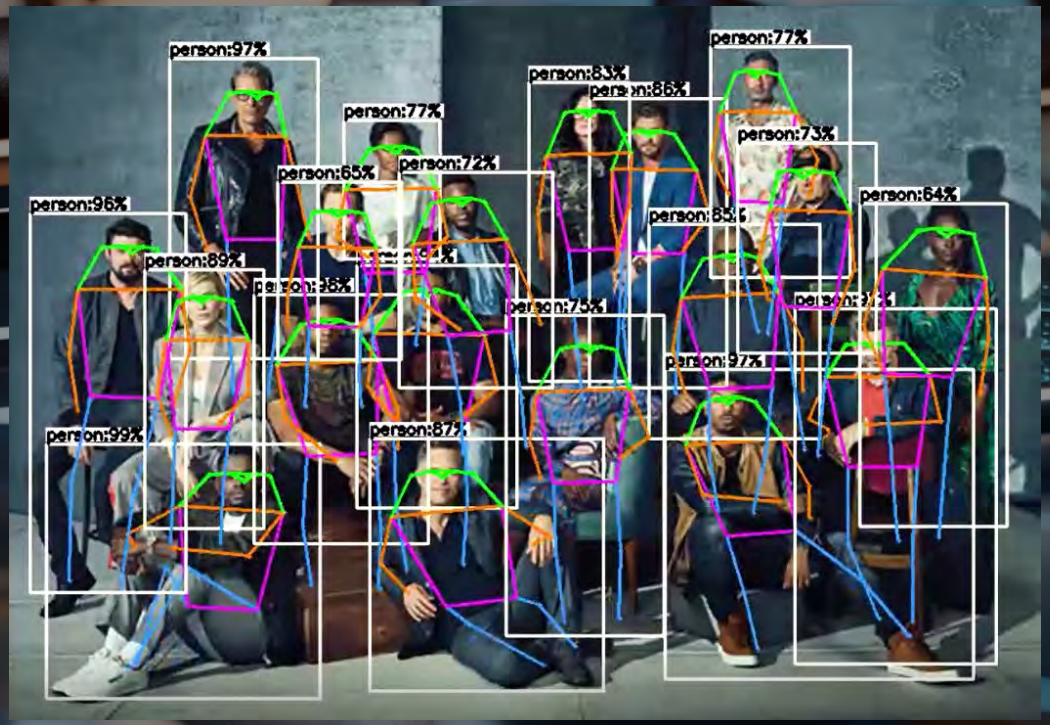
- ✓ Analyze video in detail from the top-down
- ✓ Multi-level detailed analysis of detected objects
- ✓ Multiple AI & vision algorithms can be performed simultaneously on each channel

Car detection + LPR + Car attributes

- ✓ Object Detection & Tracking
  - ✓ Pose Estimation
    - ✓ Scene Understanding
      - ✓ Active Privacy Masking
        - ✓ Tamper Detection
          - ✓ Time series event data analysis

Human detection + Human attributes + Privacy masking

AI BOX-STD *High-Performance Multi-person Pose Estimation*



- Pose estimation algorithm
- Detects exact body positions
- Detects gazes
- Even when people overlap.

AI BOX-STD *High-Performance Multi-person Pose Estimation*

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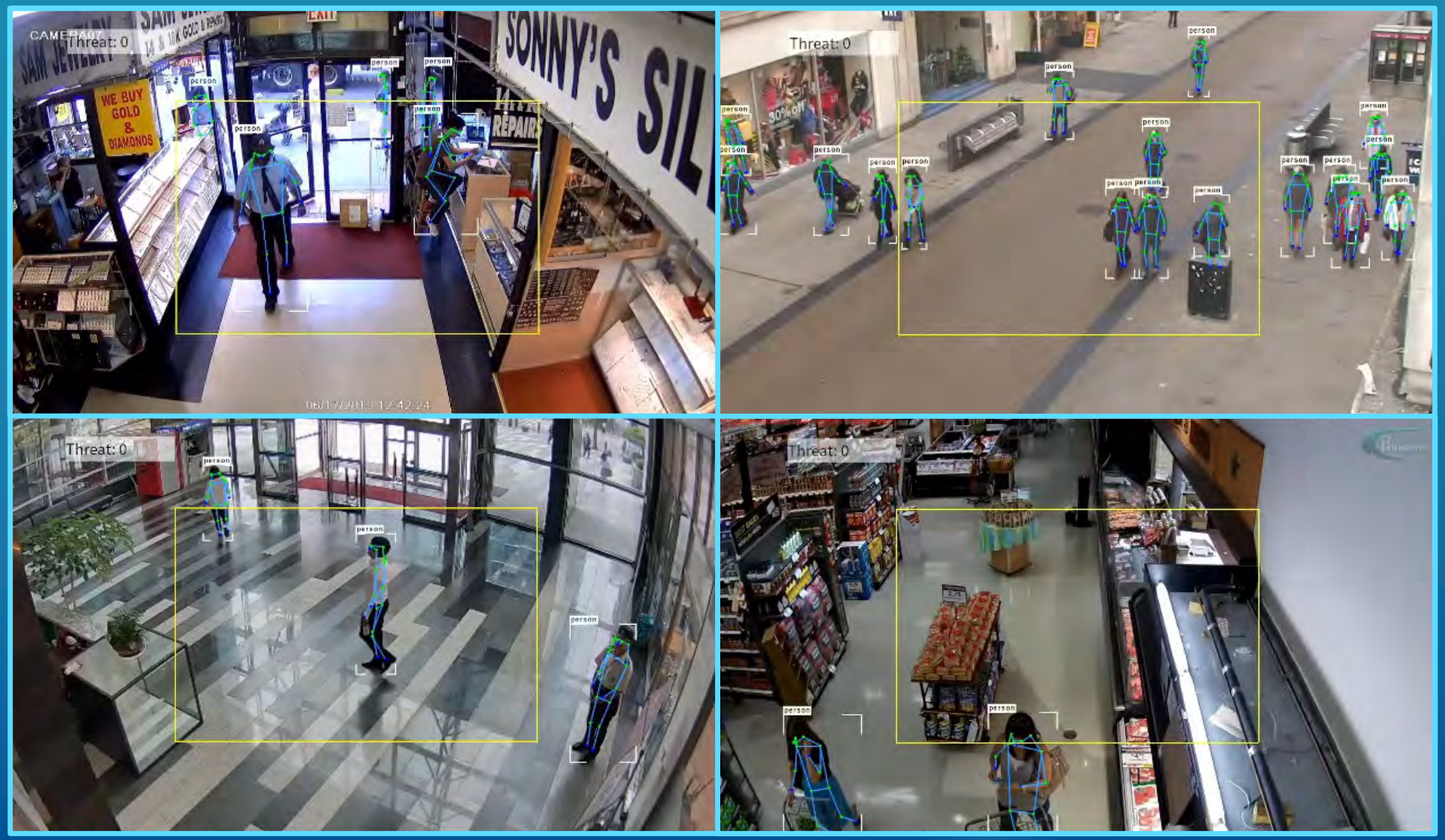
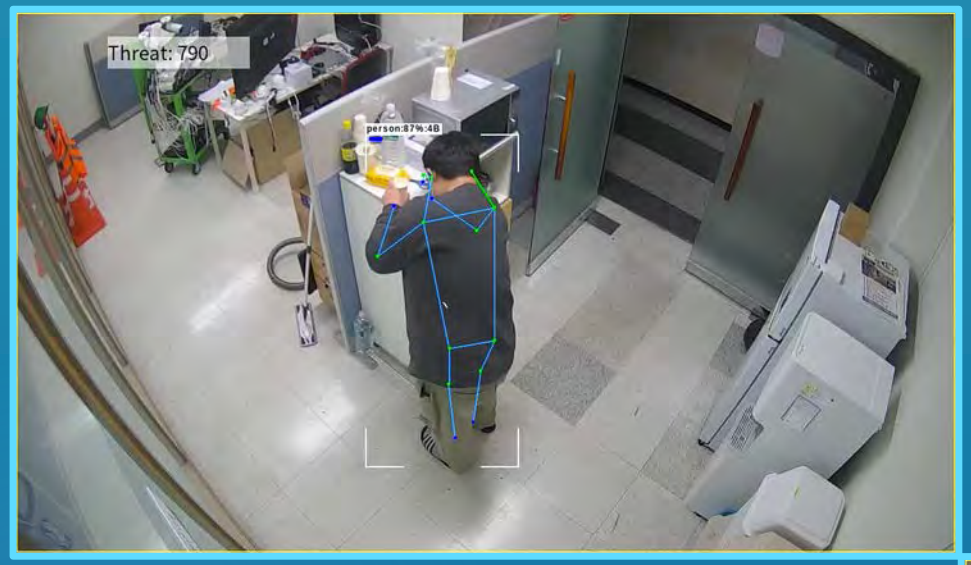


AI BOX-STD *High-Performance Multi-person Pose Estimation*



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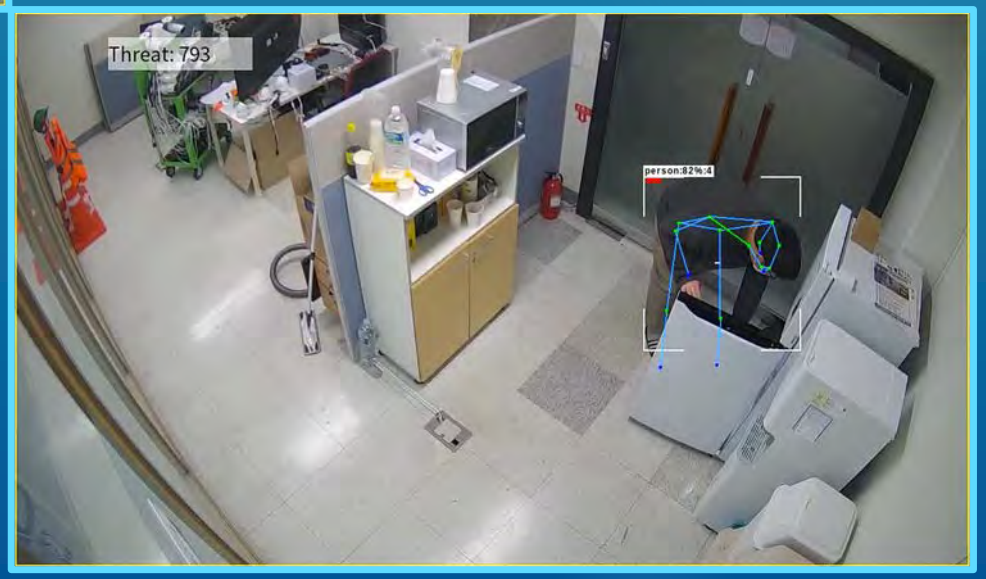
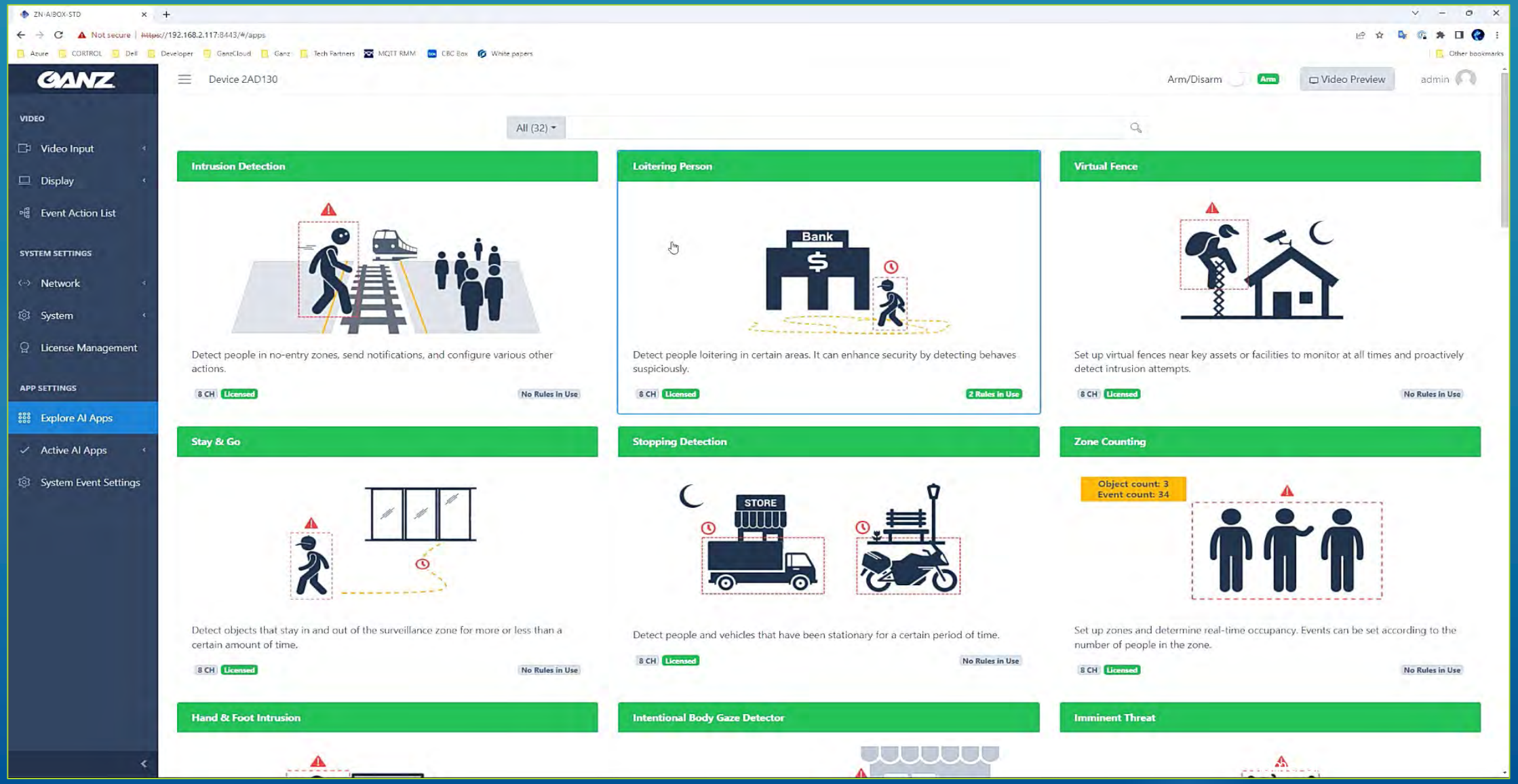


AI BOX-STD *Intuitive & Easy-to-use AI Applications*



AI BOX-STD *Highly-Accurate Object-Tracking Technology*

AI BOX-STD *Reduce false alarms through automatic scene understanding*

- False alarms may occur when an object that looks like a person is changed by light or wind
- The AI BOX-STD can filter false alarms by observing and understanding the scene

PAST (48 false alerts)

AI BOX-STD (0 false alerts)

AI BOX-STD *AI Based Applications Verticals*

Meet the Verticals *& the AI Applications that serve them*

- Security Management
- Retail Management
- Construction Site Management

AI BOX-STD *Security Management*

Intrusion Detection

Detect people in no-entry zones, send notifications, and configure various other actions.

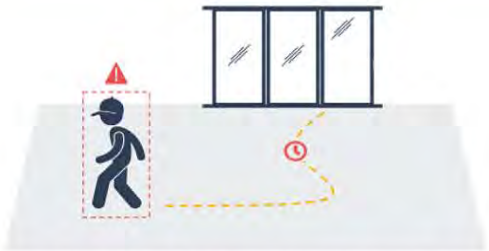
Loitering Person

Detect people loitering in certain areas. It can enhance security by detecting behaves suspiciously.

Virtual Fence

Set up virtual fences near key assets or facilities to monitor at all times and proactively detect intrusion attempts.

Stay & Go

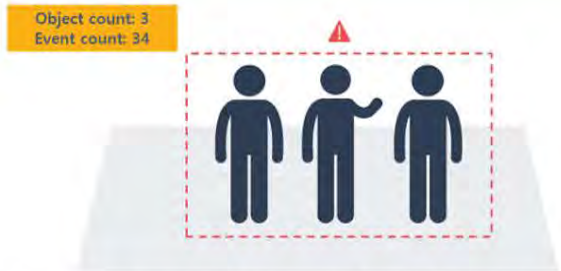


Detect objects that stay in and out of the surveillance zone for more or less than a certain amount of time.

Stopping Detection

Detect people and vehicles that have been stationary for a certain period of time.

Zone Counting



Set up zones and determine real-time occupancy. Events can be set according to the number of people in the zone.

AI BOX-STD *Security Management*

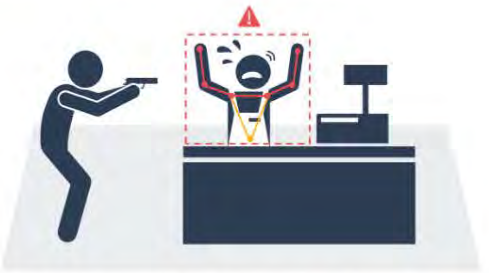
Hand & Foot Intrusion

Detects who has touched a hand or foot in a secure area.

Intentional Body Gaze

The direction of the body detects a person who is intentionally focusing their gaze in a specific direction. Detect someone who is interested in the exhibits in a show window or snooping through someone else's window.

Imminent Threat



Detect threat situations through behavioral recognition and scene understanding technology.

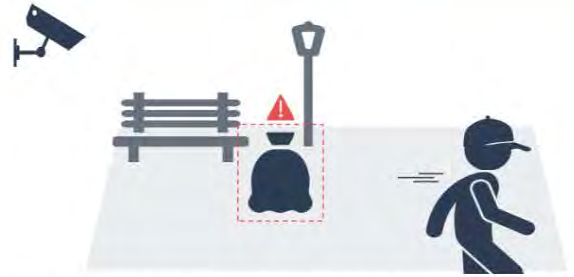
Bullying Detection

Bullying Detection

Violence Detection

Detect acts of violence such as fighting or one-sided assault.

Illegal Dumping



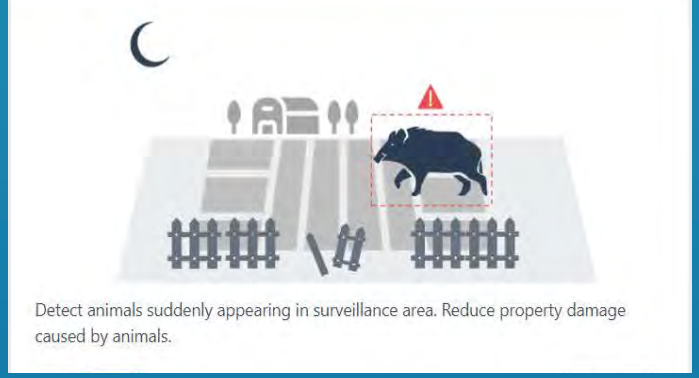
Detect abandoned objects. It can be used to detect dangerous objects or illegal dumping of garbage.

AI BOX-STD *Security Management*

Thermal Intrusion Detection

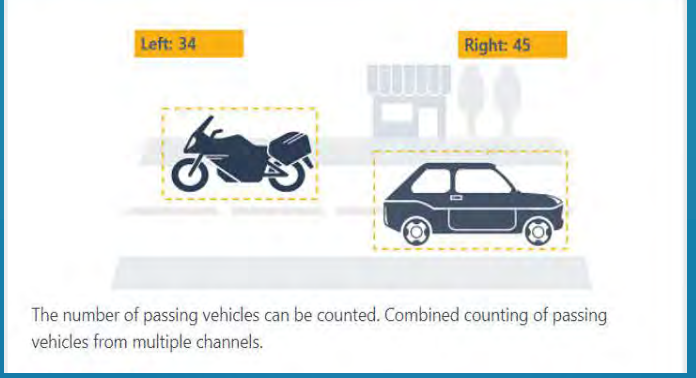
Dedicated human detection using advanced thermal imaging.

Animal Detection



Detect animals suddenly appearing in surveillance area. Reduce property damage caused by animals.

Vehicle Counting



The number of passing vehicles can be counted. Combined counting of passing vehicles from multiple channels.

Dynamic Privacy Masking

Masks everyone except the person for whom the event was detected.

Illegal Parking

Detect illegally parked vehicles. Even if the target vehicle is temporarily obscured by passing traffic, it can still be detected.

Human Prolonged Stay

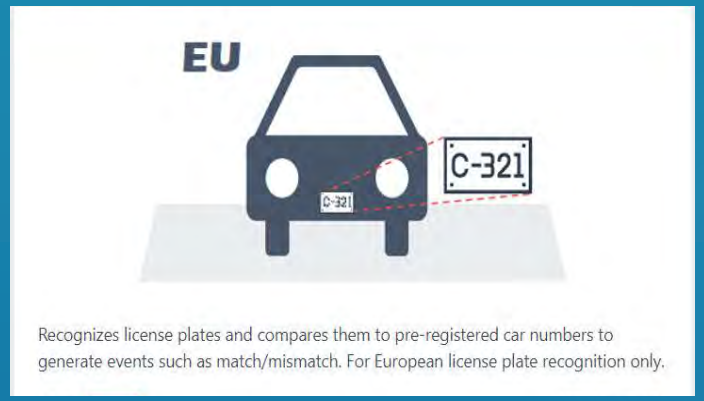
Detect homeless people, people begging in one place, people staying in one place with bad intentions such as robbery, or people staying in one place for a long time for a specific purpose, such as handing out brochures

AI BOX-STD *Security Management*

LPR-US

Recognizes license plates and compares them to pre-registered car numbers to generate events such as match/mismatch. For United States license plate recognition only.

LPR-EU



Recognizes license plates and compares them to pre-registered car numbers to generate events such as match/mismatch. For European license plate recognition only.

LPR-JP

Recognizes license plates and compares them to pre-registered car numbers to generate events such as match/mismatch. For Japanese license plate recognition only.

LPR-KR

Recognizes license plates and compares them to pre-registered car numbers to generate events such as match/mismatch. For Korean license plate recognition only.

AI BOX-STD *Retail Management*

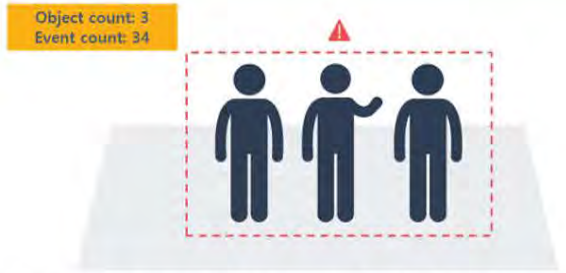
Intrusion Detection

Detect people in no-entry zones, send notifications, and configure various other actions.

Loitering Person

Detect people loitering in certain areas. It can enhance security by detecting behaves suspiciously.

Zone Counting



Set up zones and determine real-time occupancy. Events can be set according to the number of people in the zone.

Hand & Foot Intrusion

Detects who has touched a hand or foot in a secure area.

Intentional Body Gaze

The direction of the body detects a person who is intentionally focusing their gaze in a specific direction. Detect someone who is interested in the exhibits in a show window or snooping through someone else's window.

Imminent Threat

Detect threat situations through behavioral recognition and scene understanding technology.

AI BOX-STD *Retail Management*

Occupancy Counting

Calculates the number of people in the building by adding up entry and exit counts.

People Counting

Counts the floating population of a major area or counts the floating population of multiple areas by summing up.

Dynamic Privacy Masking

Masks everyone except the person for whom the event was detected.

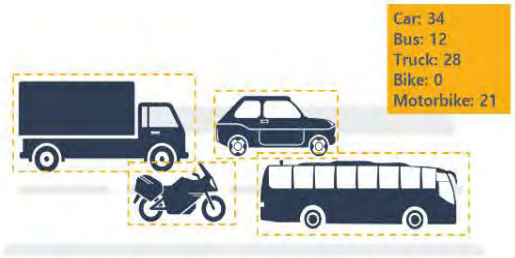
Vehicle Counting

The number of passing vehicles can be counted. Combined counting of passing vehicles from multiple channels.

Advanced Visitor Analysis

Identify the gender distribution of customers. This will help you determine the types of products, placements, and purchases, as well as the types of customers you need to develop.

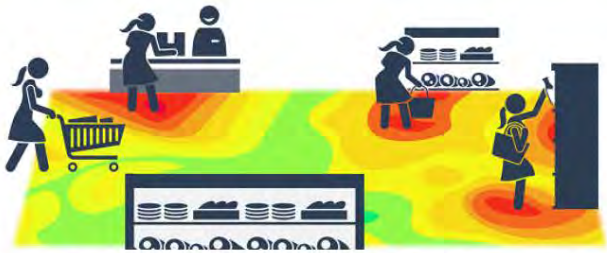
Vehicle Type Counting



Cars, trucks, buses, bikes, and motorbikes can be counted by type. You can count by summing the number of vehicles by type in multiple channels.

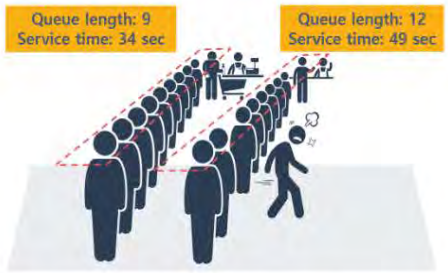
AI BOX-STD *Retail Management*

Heatmap



Heatmap data of areas where people have been detected can be generated for service improvement. By visually representing the heatmap data, areas of high and low activity can be emphasized.

Queue Management



Check the number of waiting customers and the average processing time of waiting customers.

Crowd Detection

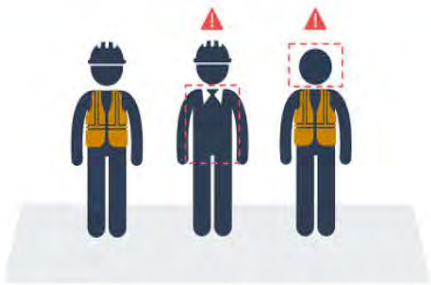
Set a zone from the camera image and understand the congestion level and frequency of the zone.

AI BOX-STD *Construction Site Management*

Intrusion Detection

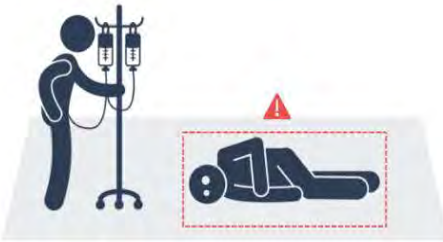
Detect people in no-entry zones, send notifications, and configure various other actions.

No PPE



Recognizes non-wearing safety equipment in the surveillance area and sends a warning message to the non-wearing safety equipment or manager.

Fallen Person Detection

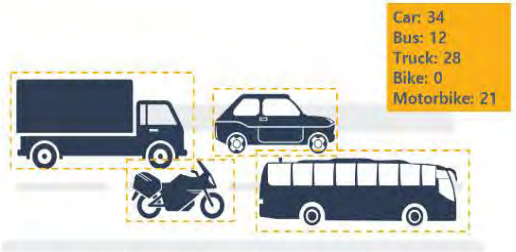


Real-time recognition of a fall and rapid propagation of an emergency can minimize human casualties.

Loitering Person

Detect people loitering in certain areas. It can enhance security by detecting behaves suspiciously.

Vehicle Type Counting



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Crowd Detection

Set a zone from the camera image and understand the congestion level and frequency of the zone.

Q & A
THANK YOU!
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