



**Infinity VMS**  
Smart Retail Solution

# SMART RETAIL SURVEILLANCE



Detect and prevent **theft** in real time with AI-powered alerts



Understand customer behaviour with **heatmaps and footfall analytics**



Use **face recognition** to identify VIPs, staff, or banned individuals



Recognize **emotions** to assess customer satisfaction and staff engagement



Spot **abnormal behaviour** using large language model (LLM)-based analysis - same core processing as ChatGPT.



Link with **POS/ePOS systems** for transaction-to-video traceability



Generate actionable insights with **business intelligence integration**



Design and deploy **custom detectors** tailored to your operations












Monitor stores across multiple locations via **decentralized architecture**



# UNIQUE FEATURES



-  Cross-platform for hardware and operating systems
-  On-premise, cloud and hybrid deployment options
-  Cloud link
-  Multi-server connectivity without public IP addresses
-  Instant export
-  Unlimited system expandability and capacity
-  Embedded feature demonstration mode
-  LLM-based custom AI
-  Custom AI models

# THEFT AND ROBBERY



**Object removal detection:** Triggers alerts when items are taken from shelves or displays without proper checkout



**Bag concealment detection:** Recognizes attempts to hide merchandise inside bags, clothing, or prams-strollers



**Aggressive behaviour recognition:** Detects signs of threatening or violent behaviour, such as raised voices or rapid movements



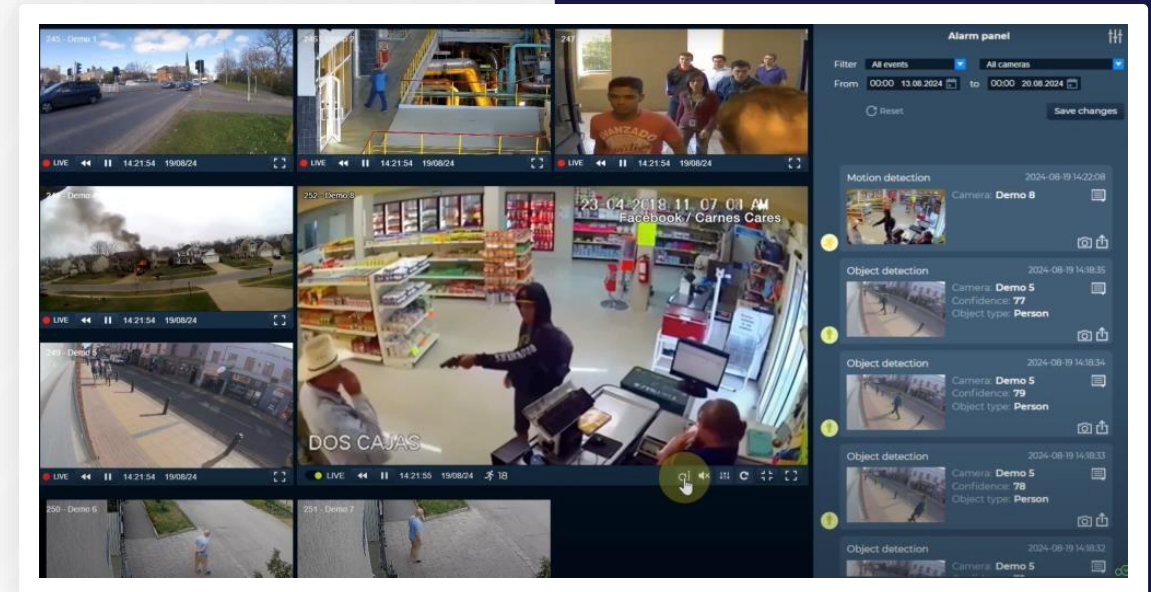
**Panic and distress detection:** Uses facial and body cues to recognize fear or distress in customers and staff



**Loitering detection:** Identifies individuals lingering in restricted and/or sensitive areas



**Alarm integration:** Automatically activates alarms or notifies security personnel when suspicious activity is detected



# HEAT MAPS



**Customer flow:** Track how people navigate through aisles, displays, and entry-exit points



**Product engagement:** Identify which shelves or zones attract the most attention



**Layout optimization:** Refine store layout for better customer experience and product exposure



**Staff placement:** Allocate staff to areas with the highest activity for improved service

# FACE RECOGNITION



**VIP identification:** Recognize returning customers and/or loyalty program members upon entry for tailored service and targeted offers



**Blacklist detection:** Instantly flag individuals previously involved in theft or misconduct for proactive intervention - for a single premises or across an entire estate, with global span



**Staff monitoring:** Authenticate staff presence for access control, time tracking, and behaviour analysis



**Demographics:** analyse visitors by age and gender



**Personalized marketing:** Trigger dynamic content or promotions on digital signage based on recognized customer profiles where privacy regulations permit.



**Queue and service optimization:** Monitor customer identities and movement across store zones to dynamically reduce waiting times and improve service




**Audit and compliance:** Maintain logs of recognized faces for security audits, access control, and incident investigation.

# EMOTION RECOGNITION

- 

**Customer satisfaction monitoring:** Analyse emotional responses like happiness, frustration, confusion to evaluate service quality and product interaction
- 

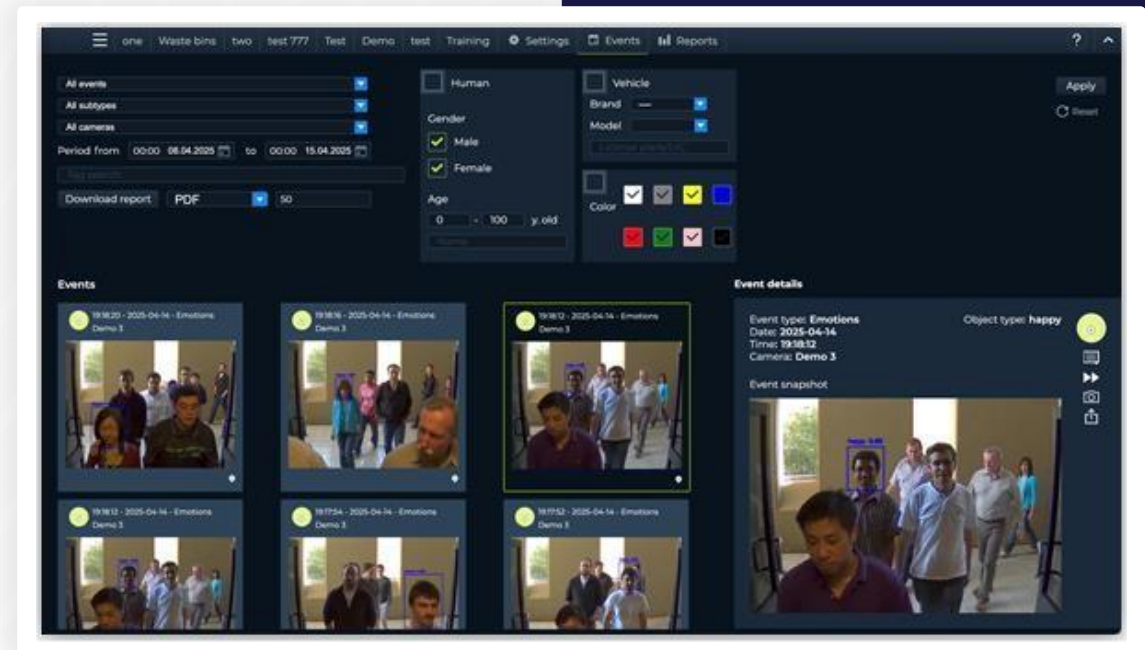
**Product placement feedback:** Measure how customers emotionally react to displays, promotions, or new product launches
- 

**Staff performance assessment:** Monitor customer emotions during service interactions to assess staff effectiveness and identify training needs
- 

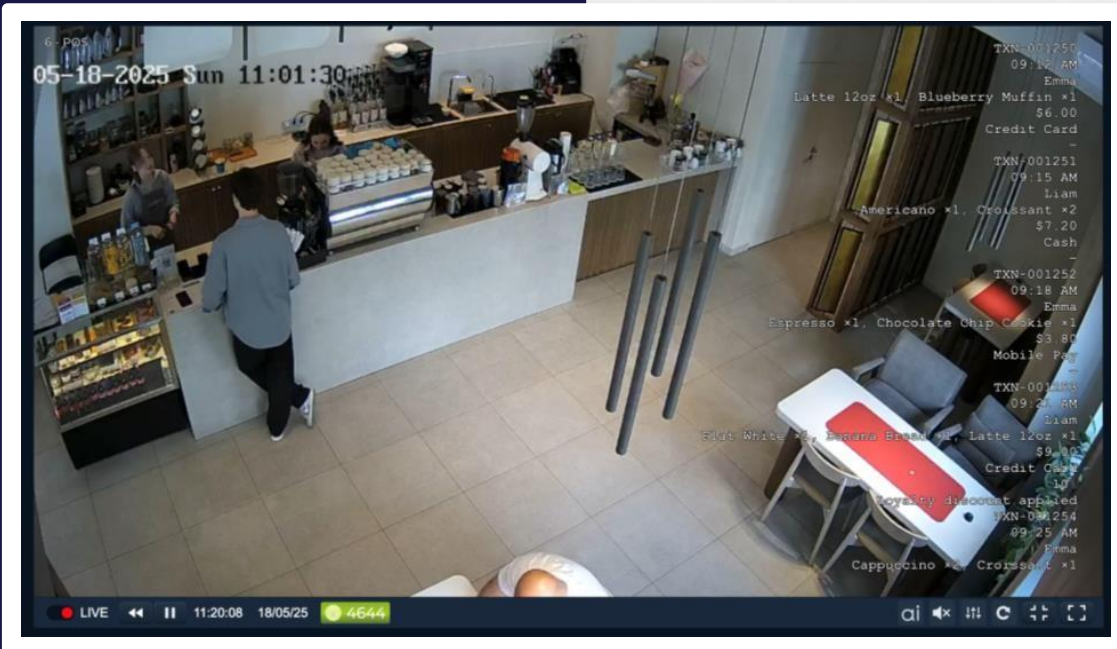
**Queue sentiment analysis:** Detect signs of impatience or dissatisfaction in checkout lines to adjust staffing or processes dynamically
- 

**Experience optimization:** Use aggregated emotion data to refine store layout, lighting, music, and overall atmosphere for a more positive customer journey
- 

**Real-time alerts:** Notify staff when negative emotions are consistently detected in specific zones, allowing for immediate action



# POS-EPOS INTEGRATION



**Video-linked transactions:** Instantly review video footage tied to each transaction for visual verification of purchases, refunds, or voids



**Fraud detection:** Identify and investigate suspicious activities such as false returns, unauthorized discounts, or cashier manipulation



**Dispute resolution:** Resolve customer complaints quickly by reviewing linked video and receipt data



**Cash handling oversight:** Monitor cash drawer openings, high-value transactions, and no-sale events in real time



**Operational insights:** Correlate sales trends with customer behavior, footfall, and staffing levels for performance optimization



**Exception reporting:** Automatically flag irregular transactions for further review with direct video context



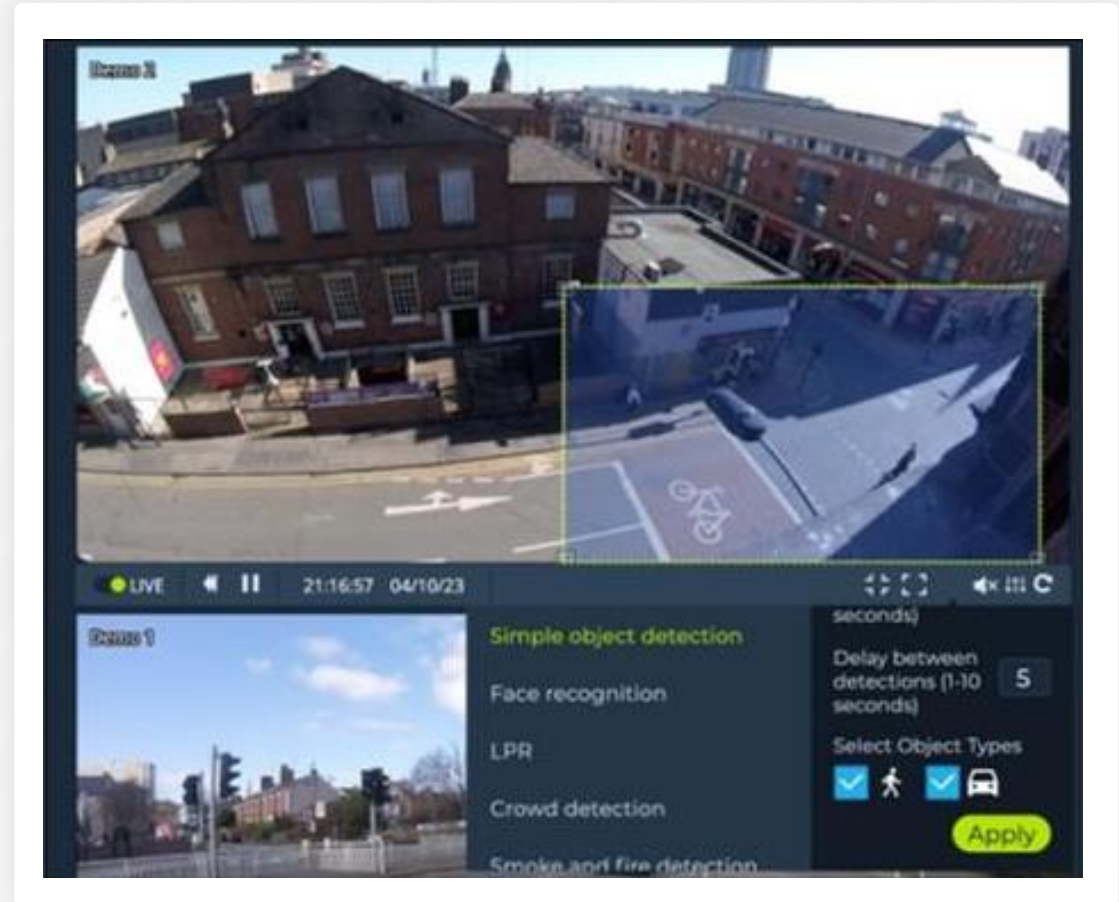
Additional non-specific analytics to compliment and enhance the overall level of detections and security for a given premises or global estate



### Including

- Human Detection
- Vehicle Detection
- 45 standard objects such as individual animals, inanimate objects etc
- Abandoned items such as bags etc
- Items Added/Removed into a scene
- Traffic Analysis
- PPE detection
- Facial Detection and Recognition
- AI Visual Assistance and Learning
- AI Tags
- License Plate Recognition/ANPR

# OTHER ANALYTICS



# STANDARD OBJECT DETECTORS



**42 NEW OBJECT DETECTORS  
ADDED TO**









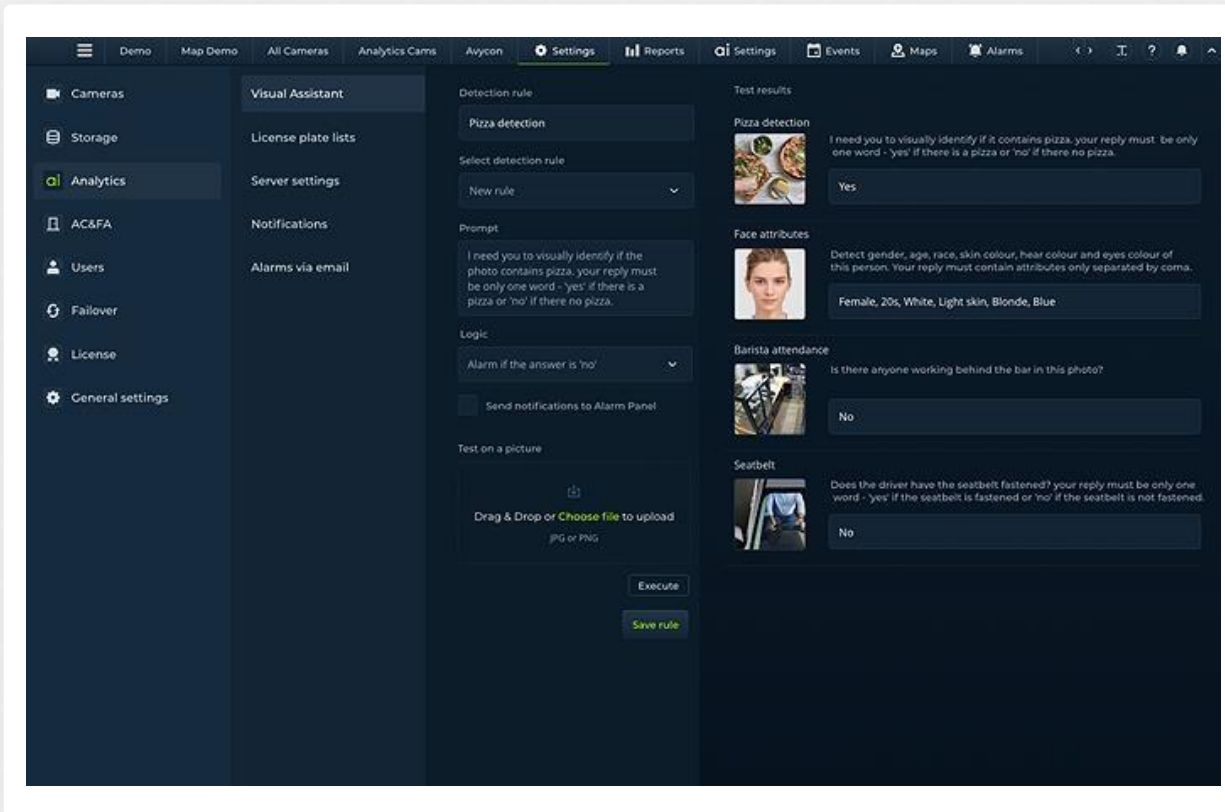
infinity  
VMS

Available for Intel, AMD and ARM  
No GPU required



# BUSINESS IOT

- 
**Unified dashboards:** Combine video events, customer behaviour metrics, and transaction data in real-time dashboards for executives and store managers
- 
**Trend analysis:** Visualize long-term trends in foot traffic, heat map activity, theft attempts, and customer sentiment across multiple store locations
- 
**Operational optimization:** Correlate staffing schedules, queue times, and sales performance to improve efficiency and reduce costs
- 
**Interactive reports:** Create dynamic, filterable reports by store, region, product category, or time period for deeper decision-making
- 
**Custom KPIs:** Track unique performance indicators such as conversion rates, visits vs. purchases, dwell time vs. sales ratio, or alert-to-response time
- 
**Multi-source data fusion:** Merge data from Infinity VMS, POS, CRM, and IoT systems into a single view to support cross-functional business strategies



# CUSTOM ANALYTICS



Create your own analytics with textual prompts



Detects any objects of any type for any conditions



Reads inscriptions



Counts unusual objects and actions



Internet connection NOT REQUIRED can all be done locally

# CUSTOM A.I MODELS



Native support for YOLO (You Only Look Once)



Machine Learning and Neural Network detections



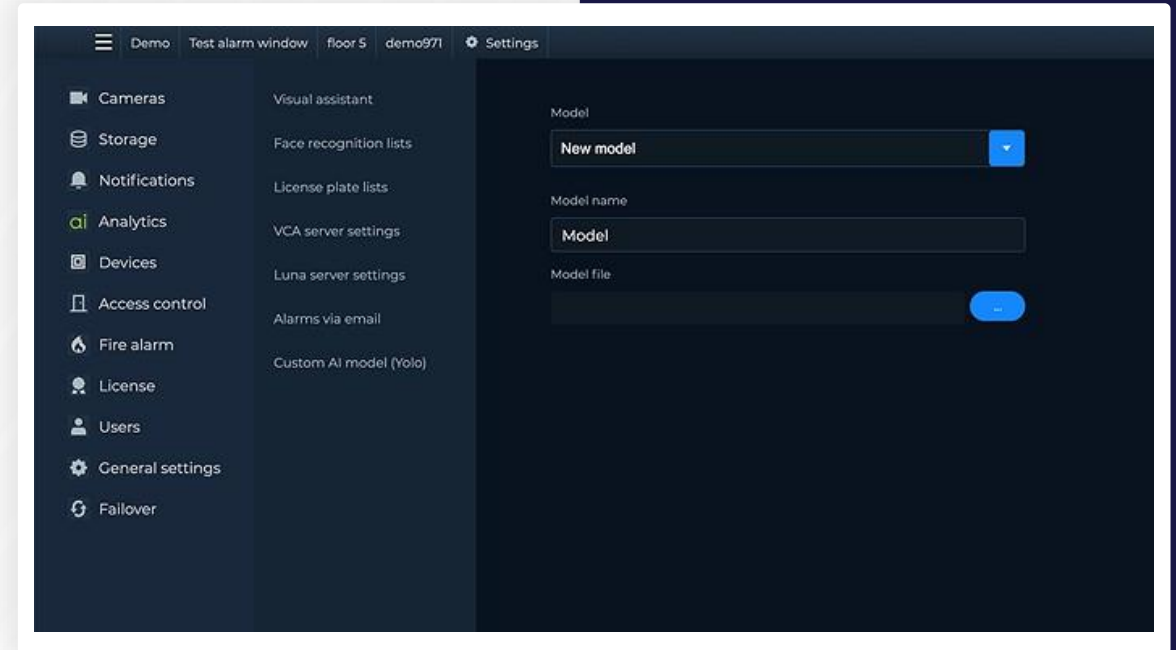
Simply load the model and start using it immediately



Train your own custom model with Roboflow and Yolo



Ultra-Low hardware requirements



# NOTIFICATIONS: ALARMS EVENTS



Alarm panel



Email



Telegram



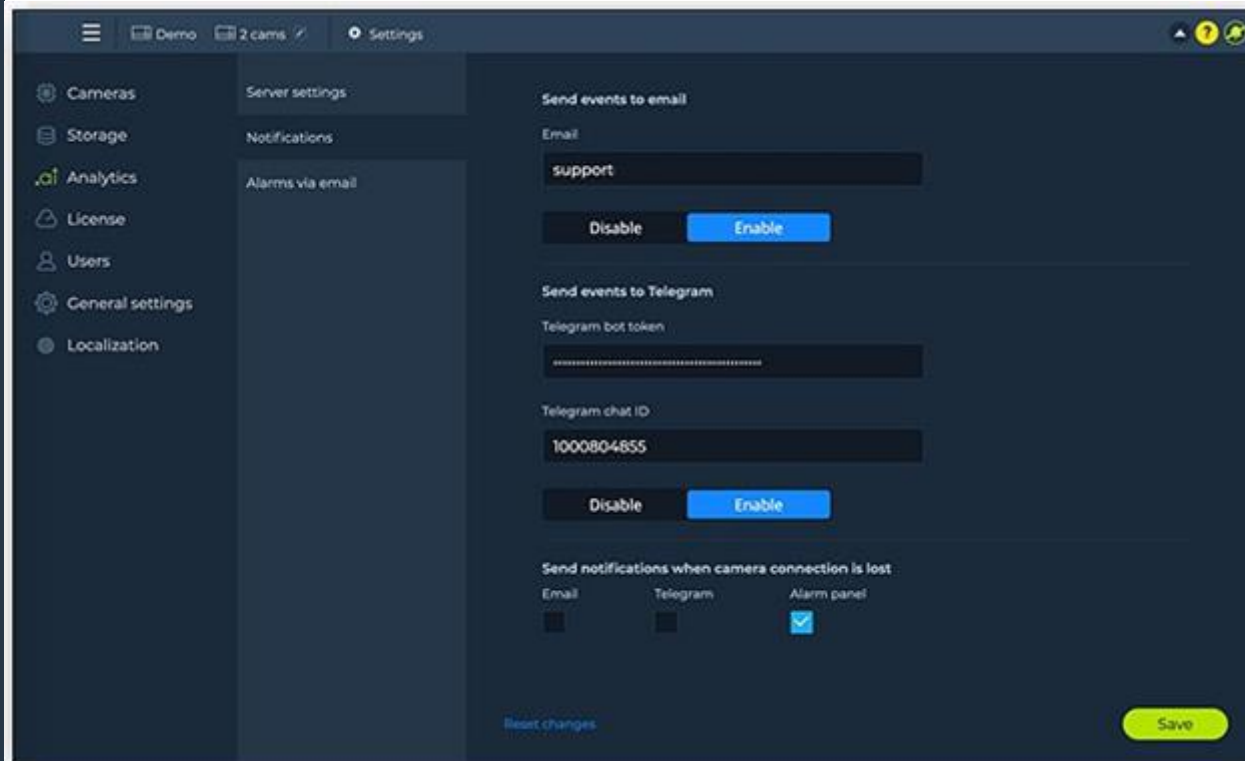
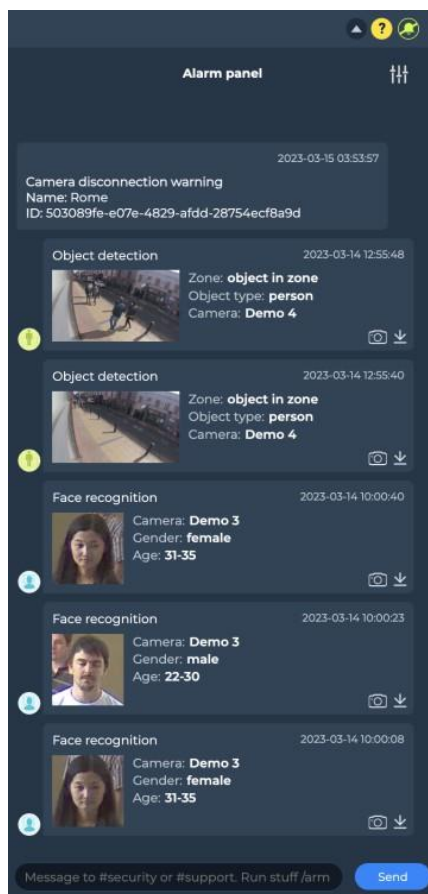
Comments



Alarm schedules



HTTP





Data visualization charts



Filters



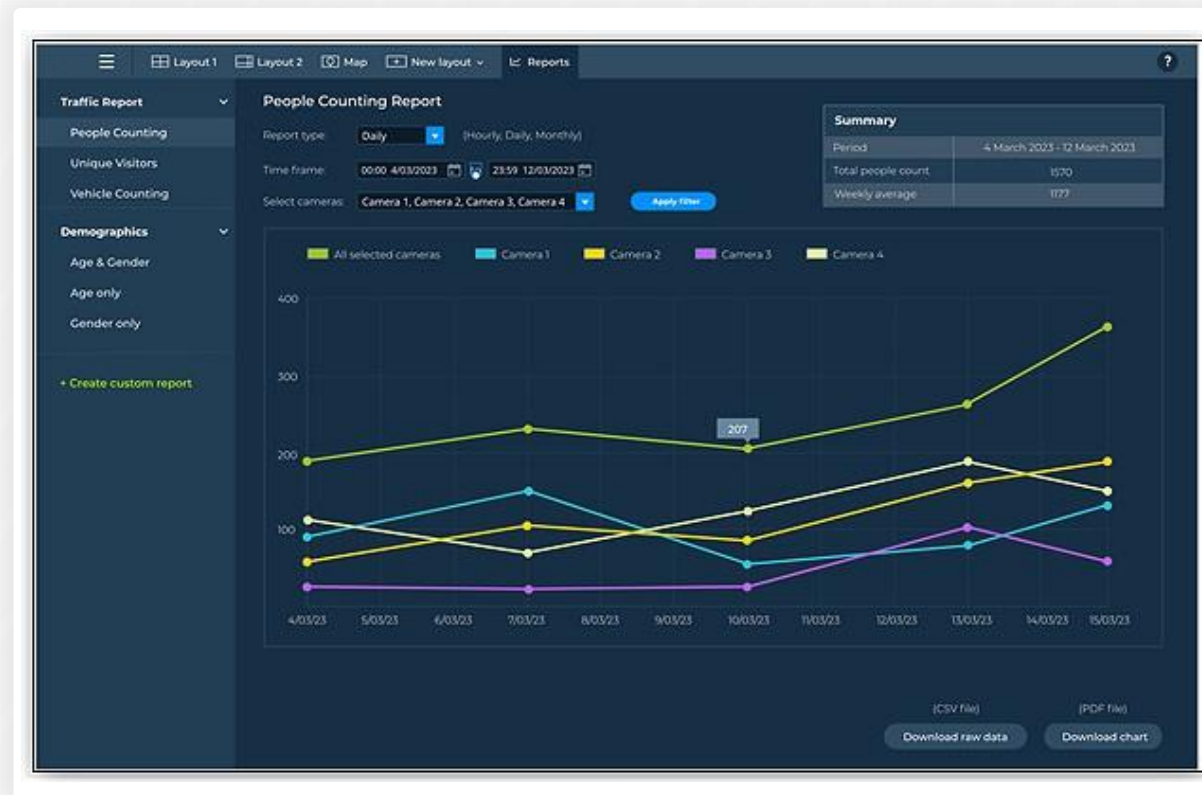
Raw data export - CSV



Chart export - PDF











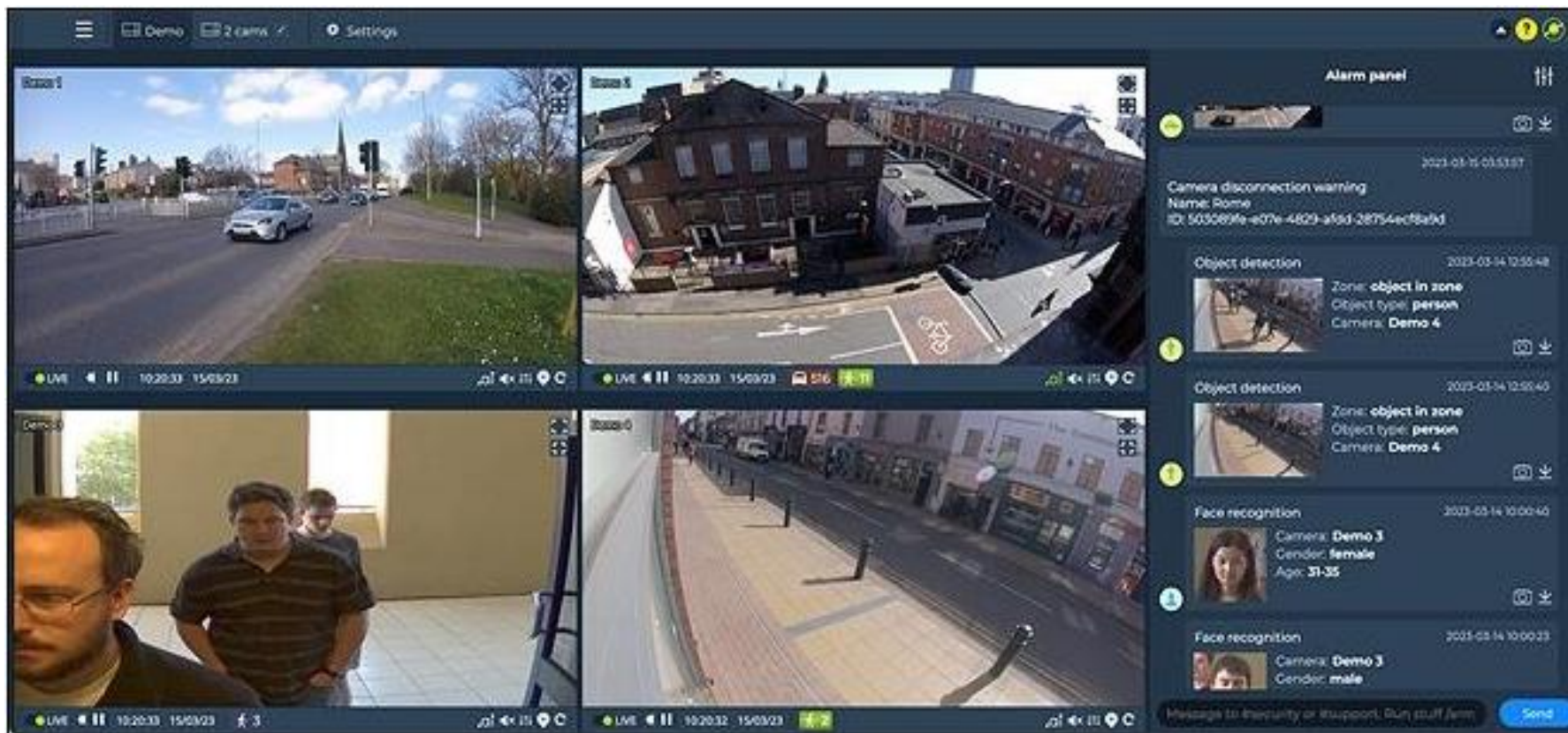
Summary













# REPORTS

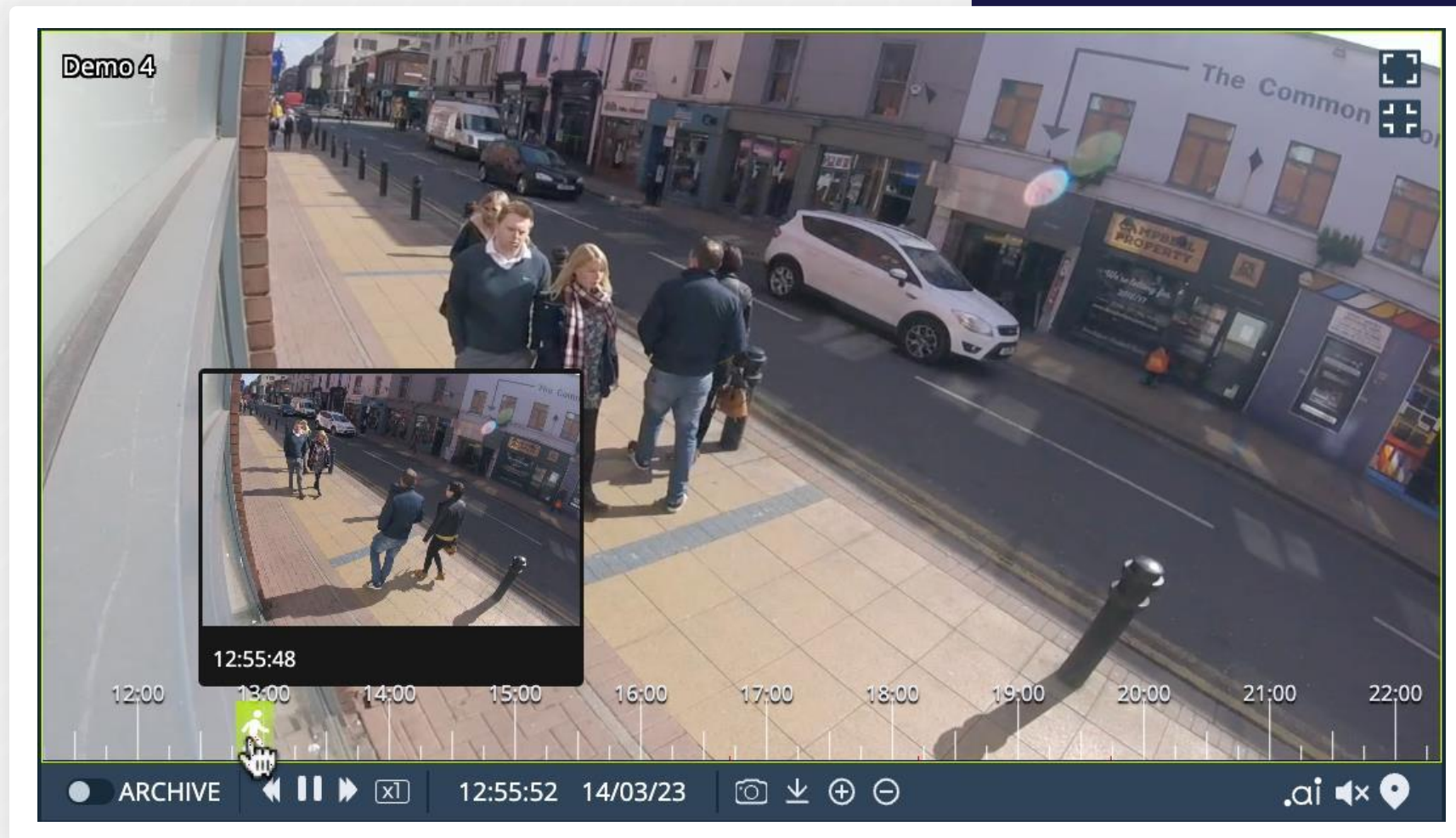
# GUI: GRAPHICAL USER INTERFACE

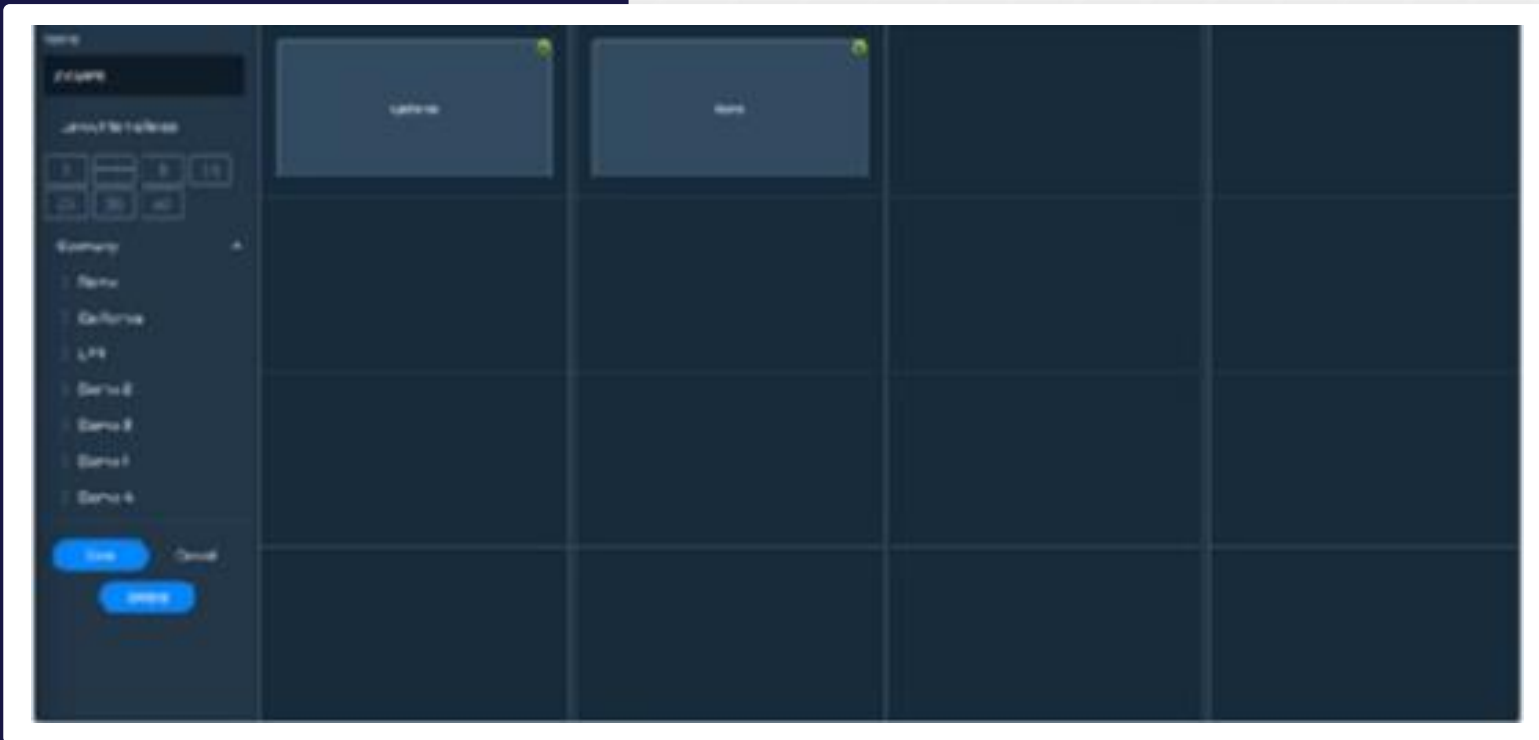
-  Intuitive
-  Functional
-  Flexible
-  Win-Mac-Linux support
-  iOS-Android apps
-  Single page Web app
-  Video wall
-  21 languages



# TIMELINE

-  Fast load
-  Zoom in-out with mouse or with buttons
-  Drag with mouse
-  Archive indication
-  Objects indication
-  Event snapshot
-  Cursor time indication
-  Double click to select
-  Fast playback
-  Time stamp playback





## LAYOUTS



Drag and drop



individual cameras and groups



Scrollable



CPU-network friendly



Cameras from different servers

# VIDEO WALLS

-  Create multiple layouts
-  Create a layout for a monitor
-  Create individual set of layouts for each monitor
-  Doesn't require special hardware
-  CPU - Network friendly
-  Use cameras across different servers
-  Add maps and floor plans
-  Add cameras, doors and sensors
-  Create reports and visual data



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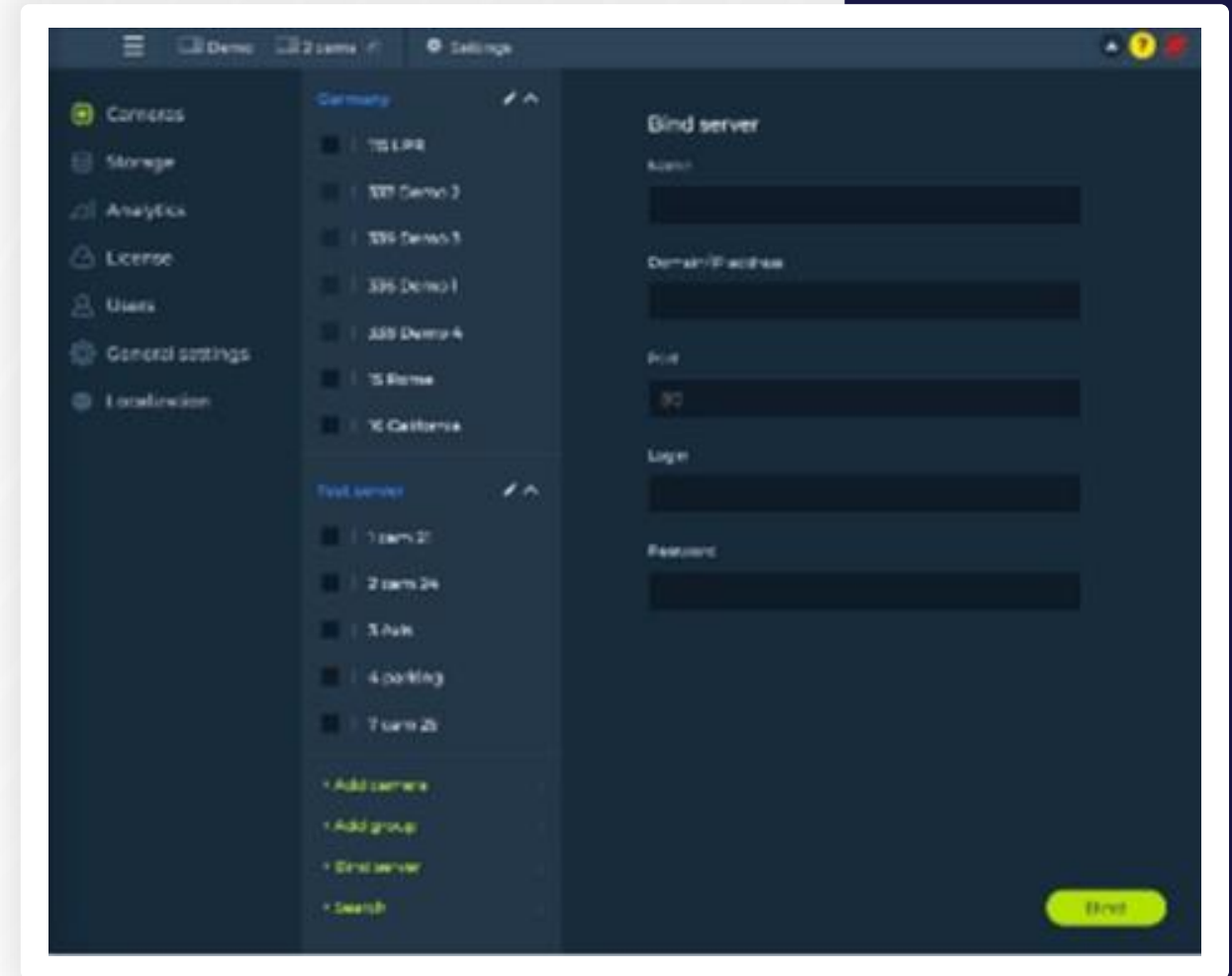
Create reports and visual data

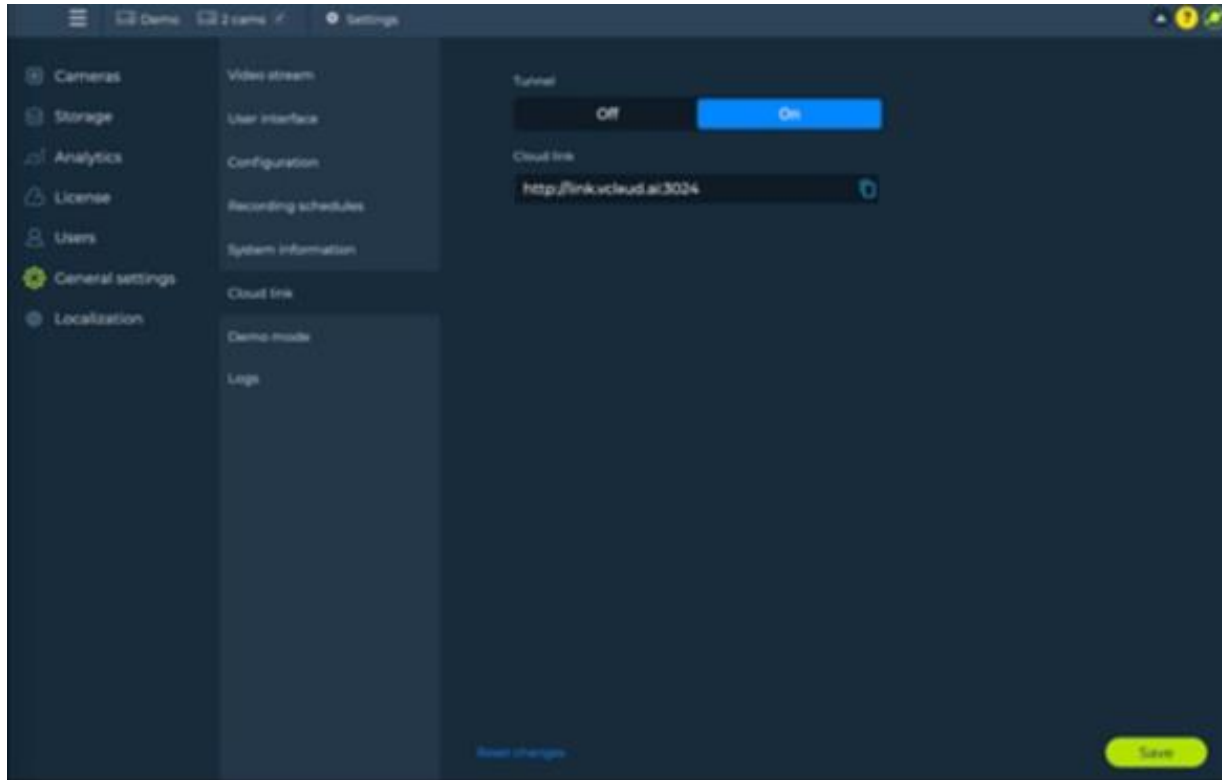
# VIEW EVERYTHING EVERYWHERE



## Multi-server

- Bind server together
- No limit on number of servers
- Manage cameras and storage from one spot
- Mixed layouts
- Alarms from all servers in a single client
- Server time sync -NTP-





## LINK TO THE CLOUD



Generate link for external access







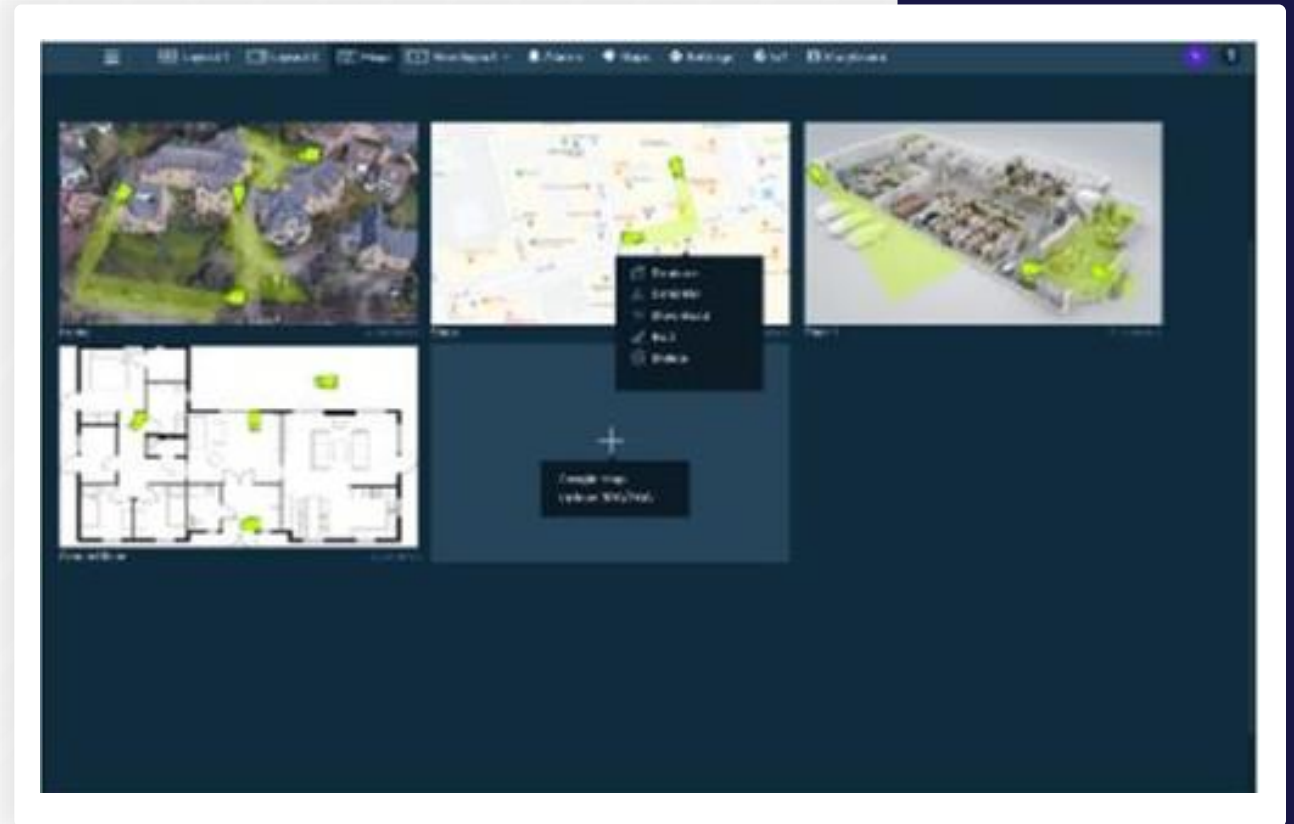
No static ip or port forwarding required



Bind servers with Cloud link








# MAPS AND FLOORPLANS

-  Camera locations on maps and floor plans
-  Detailed global maps
-  Satellite maps
-  Multi level floor plans





# RECORDING OPTIONS

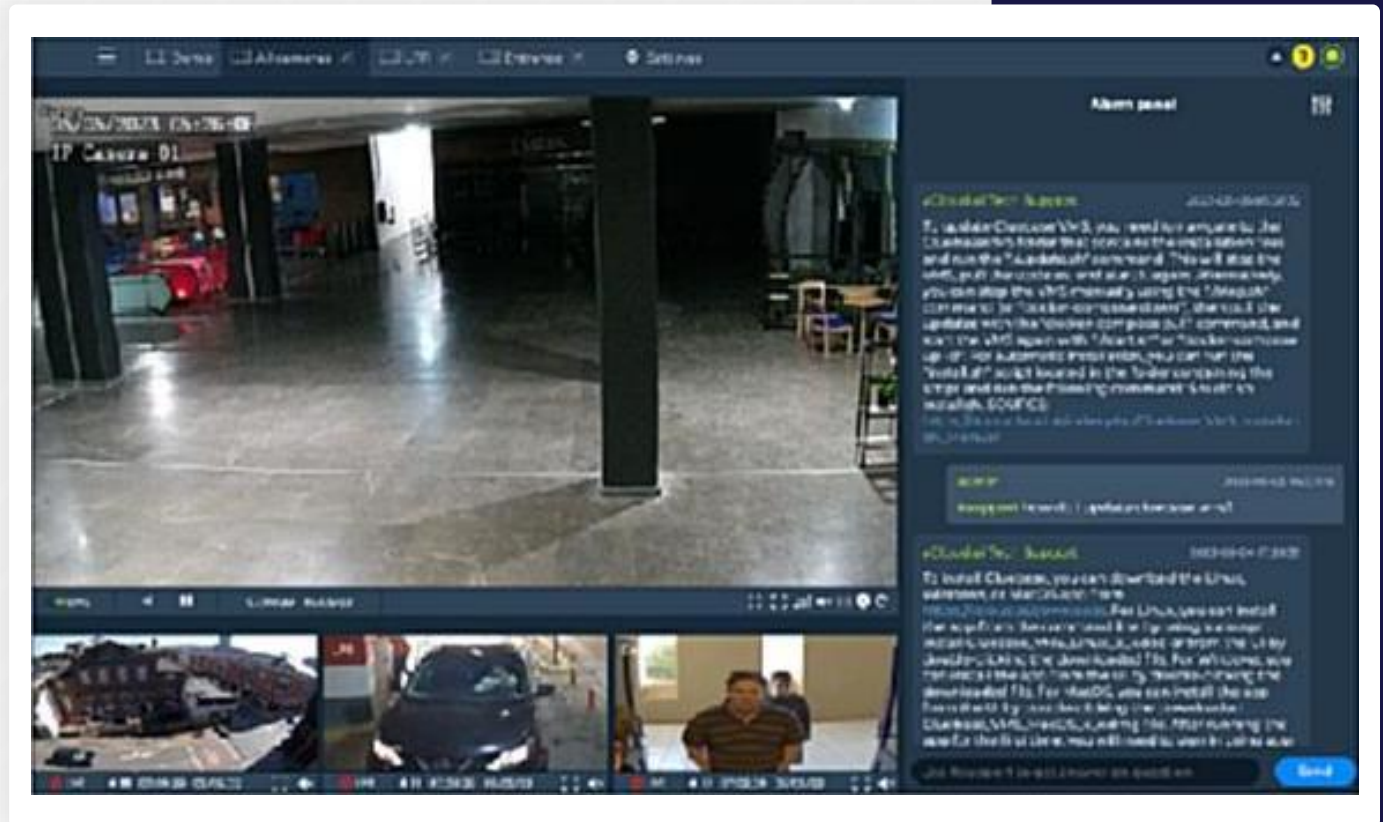
-  Recording logic - full time, on alarm, on schedule.
-  Depth limits for individual cameras and for disk
-  Multi-disk storage management
-  Pre- and post-recording
-  Bulk configuration
-  Disk space indication
-  Convenient schedule editor

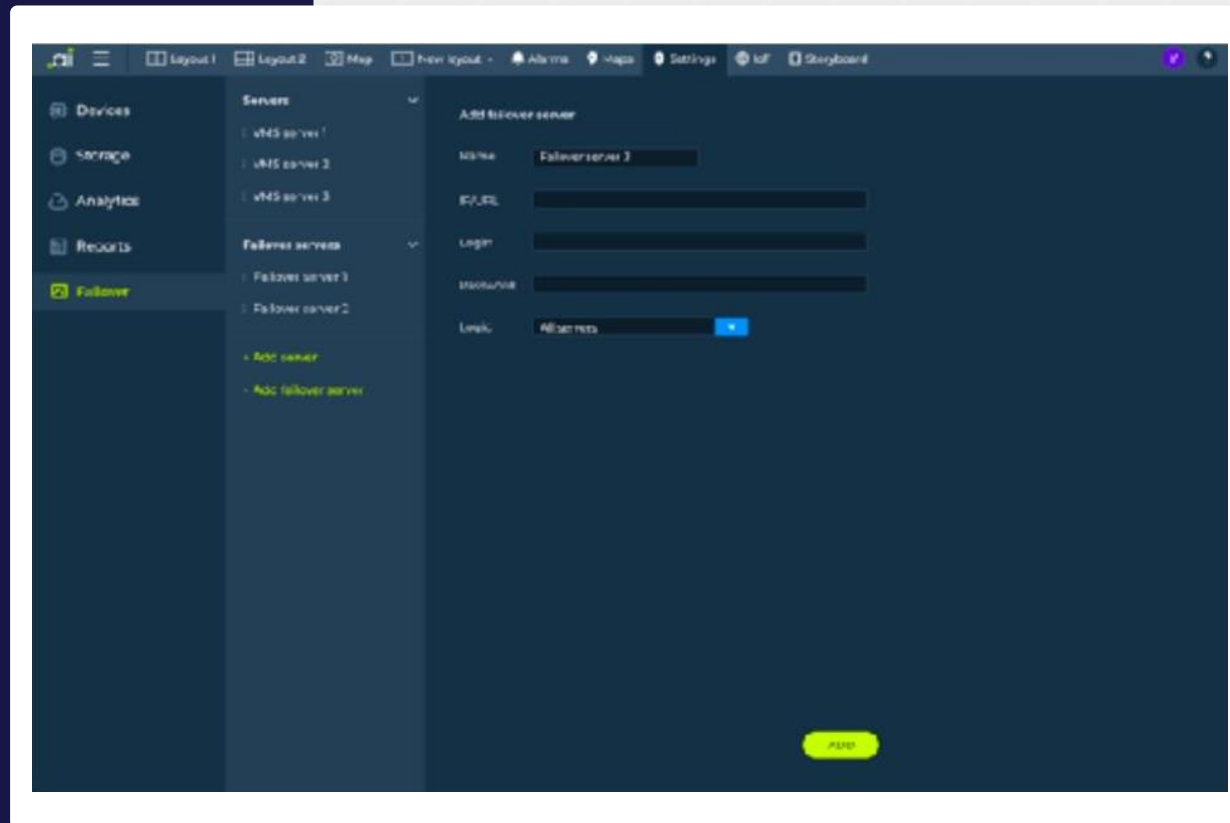
# A.I HELP AND SUPPORT



## ChatGPT - based technical help

- Original ChatGPT
- Trained to documentation, training materials and API
- Available in the UI





# FAILOVER AND REDUNDANCY



## Failover

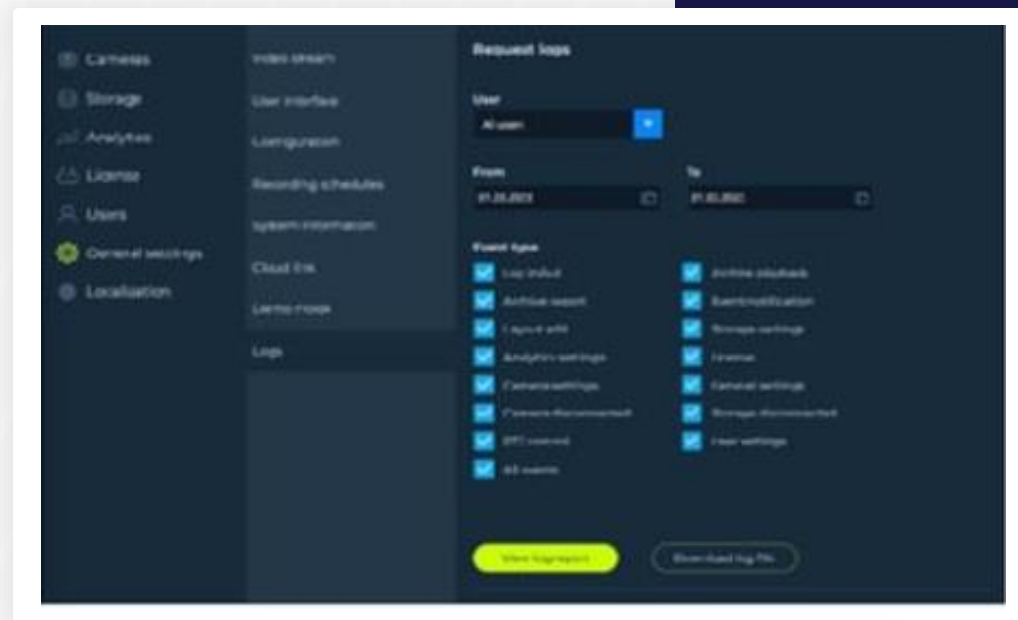
- Hot swap logic
- Analytics
- One failover for many servers
- Individual failover for each server
- Lightweight
- Minimal configuration work

# LOGGING AND ACTIVITY

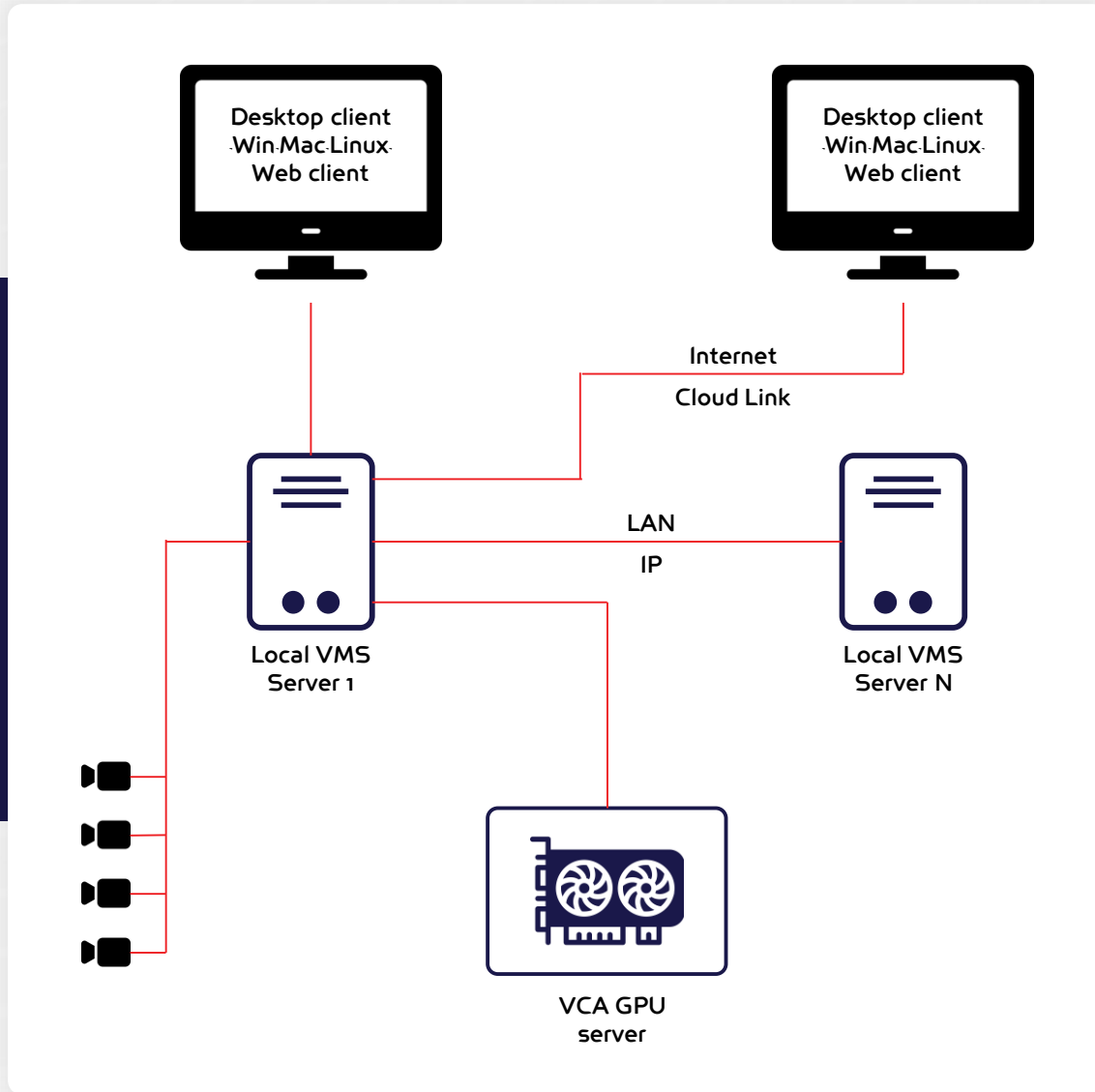


## Logs

- Advanced system usage logs
- Filters
- Export



ID	User	Activity	Date and time	View
P00020	Admin	Save notification	2023-03-01 10:00	Event log export
P00021	Admin	Save notification	2023-03-01 10:01	Event log export
P00022	Admin	Save notification	2023-03-01 10:02	Event log export
P00023	Admin	Save notification	2023-03-01 10:03	Event log export
P00024	Admin	Save notification	2023-03-01 10:04	Event log export
P00025	Admin	Save notification	2023-03-01 10:05	Event log export
P00026	Admin	Save notification	2023-03-01 10:06	Event log export
P00027	Admin	Save notification	2023-03-01 10:07	Event log export
P00028	Admin	Save notification	2023-03-01 10:08	Event log export
P00029	Admin	Save notification	2023-03-01 10:09	Event log export
P00030	Admin	Save notification	2023-03-01 10:10	Event log export
P00031	Admin	Save notification	2023-03-01 10:11	Event log export
P00032	Admin	Save notification	2023-03-01 10:12	Event log export
P00033	Admin	Save notification	2023-03-01 10:13	Event log export
P00034	Admin	Save notification	2023-03-01 10:14	Event log export
P00035	Admin	Save notification	2023-03-01 10:15	Event log export
P00036	Admin	Save notification	2023-03-01 10:16	Event log export
P00037	Admin	Save notification	2023-03-01 10:17	Event log export
P00038	Admin	Save notification	2023-03-01 10:18	Event log export
P00039	Admin	Save notification	2023-03-01 10:19	Event log export
P00040	Admin	Save notification	2023-03-01 10:20	Event log export
P00041	Admin	Save notification	2023-03-01 10:21	Event log export



# FLEXIBLE DEPLOYMENTS ON SITE



## On-premise deployment

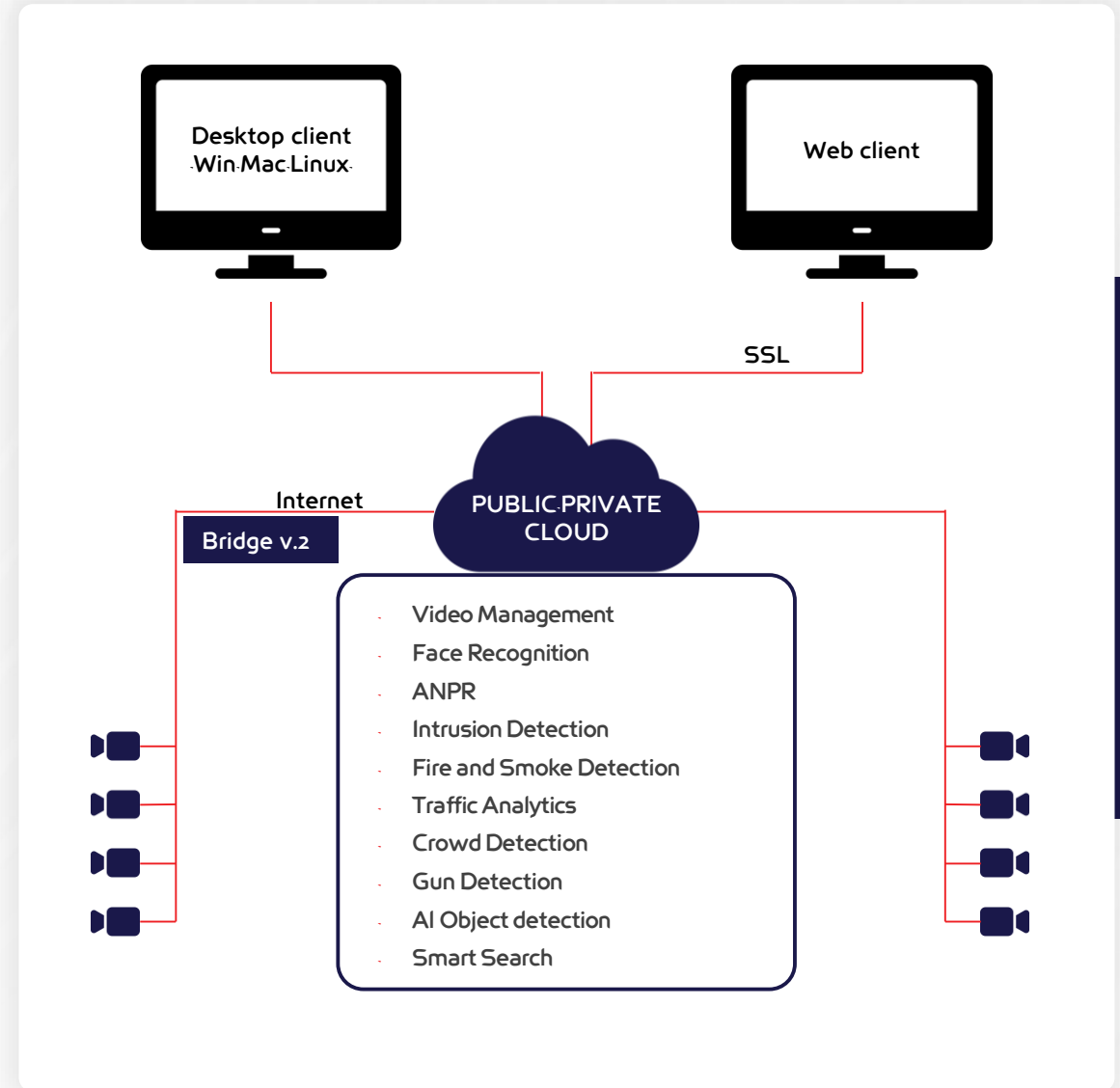
- Unlimited number of servers and cameras
- Cross-platform client .Win.Mac.Linux.Web.
- CPU and GPU video analytics
- Open API for integration
- Optional

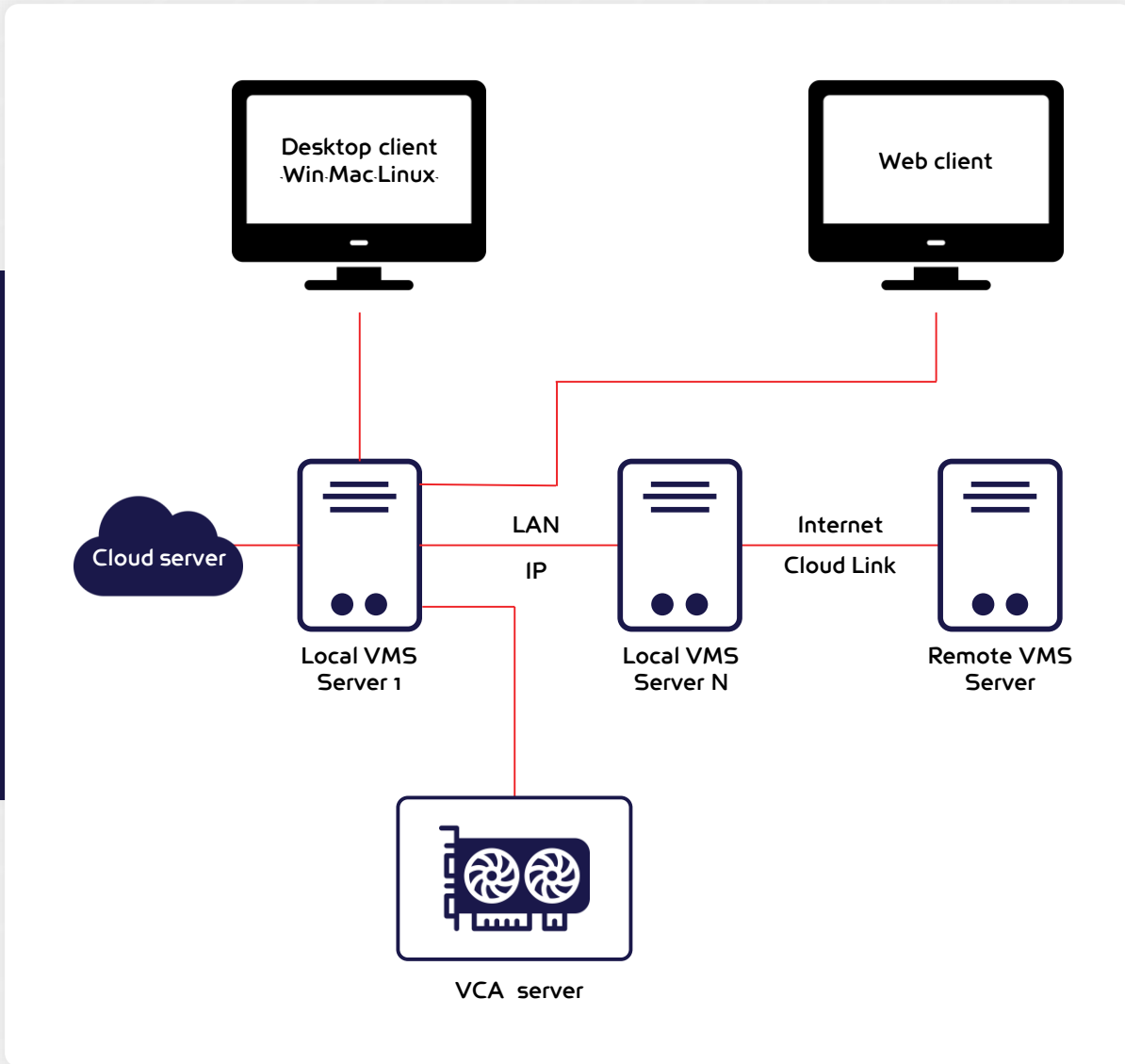
# FLEXIBLE DEPLOYMENTS **CLOUD**



## Cloud deployment

- Hardware agnostic
- Full featured VMS · VCA
- Works without public IP





# FLEXIBLE DEPLOYMENTS

## HYBRID



### Hybrid deployment

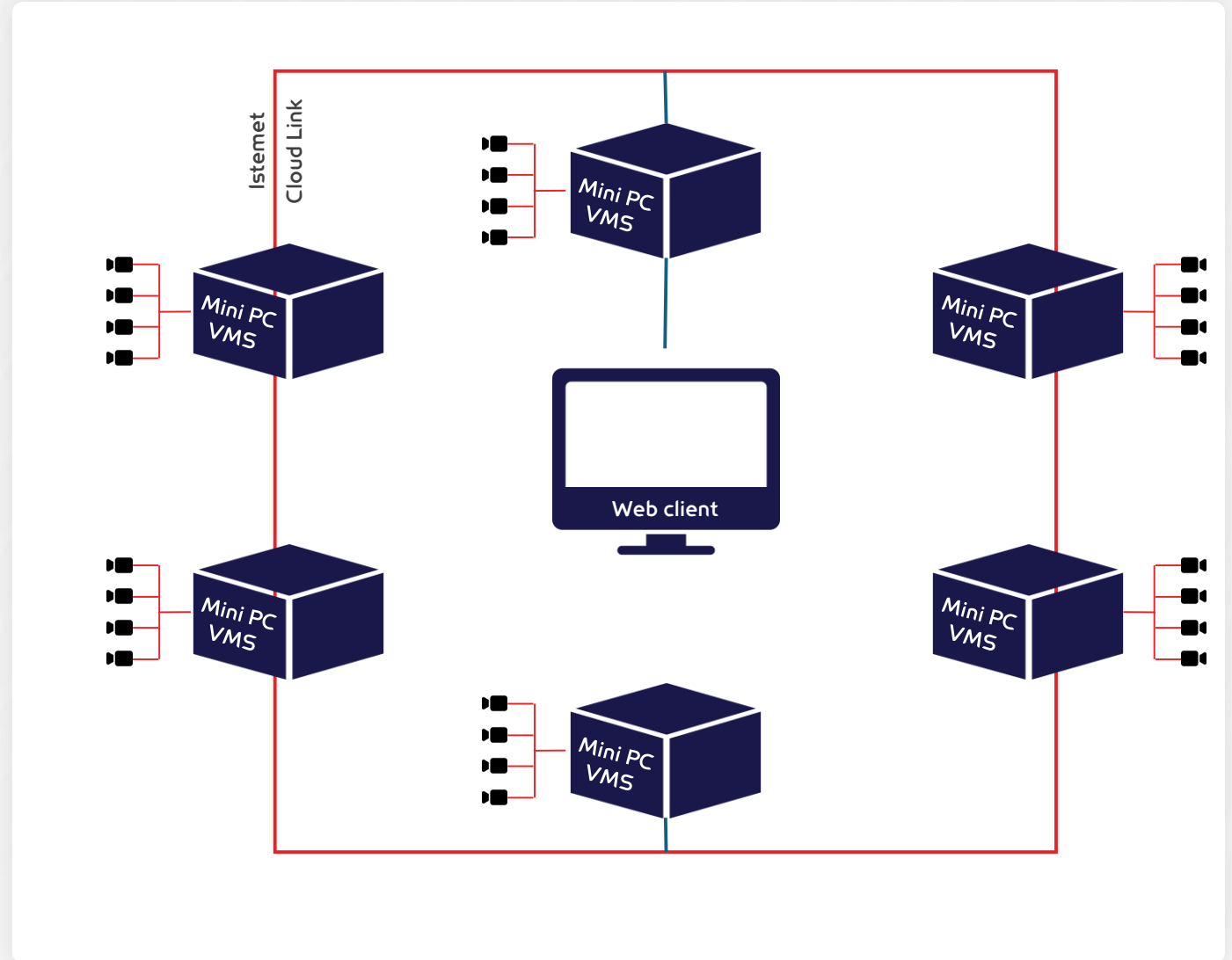
- From 1 camera to millions
- On-premise or and cloud
- Cloud link

# REVIEW FROM ANYWHERE



## Decentralised monitoring

- EDGE recording and AI
- Single page monitoring
- Single spot management
- Consolidated reports
- BI integration



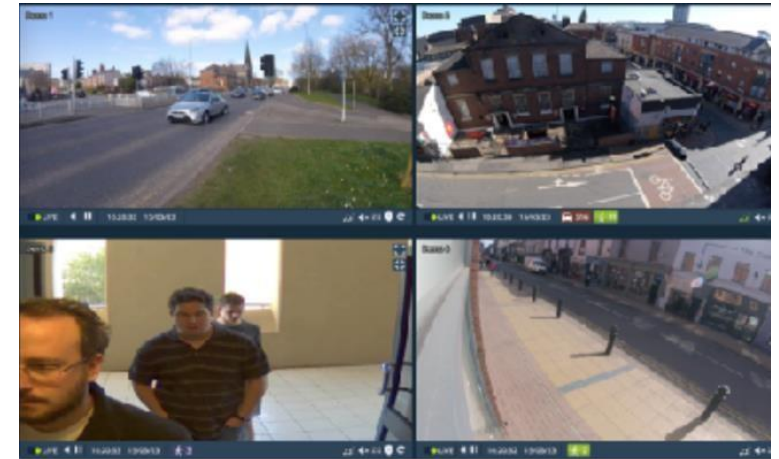
# VMS CORE ASPECTS

Auth	
POST	api/auth/ - api authentication
Event	
POST	api/event/addressbook/addressbook - Pushes and saves address event
Devices	
GET	api/camera/getdevices - Returns user devices
Archive	
GET	api/camera/getarchive/segment/segmentId - Returns the device archive segment status and the segment details
GET	api/camera/getarchive/segment/segmentId - Returns the device archive segment status and the segment details
GET	api/camera/getarchive/segment/segmentId - Returns the device archive segment status and the segment details
GET	api/camera/getarchive/segment/segmentId - Returns the device archive segment status and the segment details
GET	api/camera/getarchive/segment/segmentId - Returns the device archive segment status and the segment details
GET	api/camera/getarchive/segment/segmentId - Returns the device archive segment status and the segment details
Live	
GET	api/camera/getarchive/segment/segmentId - Returns the device archive segment status and the segment details
POST	api/camera/getarchive/segment/segmentId - Returns the device archive segment status and the segment details

VMS



API - SDK



SaaS-onsite

## EXISTING RETAIL CUSTOMERS

Sainsbury's

TESCO









Walmart   
Save money. Live better.



 ASDA

M&S  
EST. 1884

# SUPPORT

- 
 Free Tech Support Globally for Partners
- 
 Hardware and Software supplied together so product comes as a box.
- 
 Pre-configuration - just take it to site and turn it on
- 
 Pre-sales support; product demos, site surveys, client meetings
- 
 Remote Support and Assistance -requires internet connection on site.
- 
 On-site Support and Assistance
- 
 Direct support contracts can be purchased
- 
 Warranty extensions can be purchased offering a longer warranty than any other vendor!





THANK YOU

**THANK**

THANK YOU