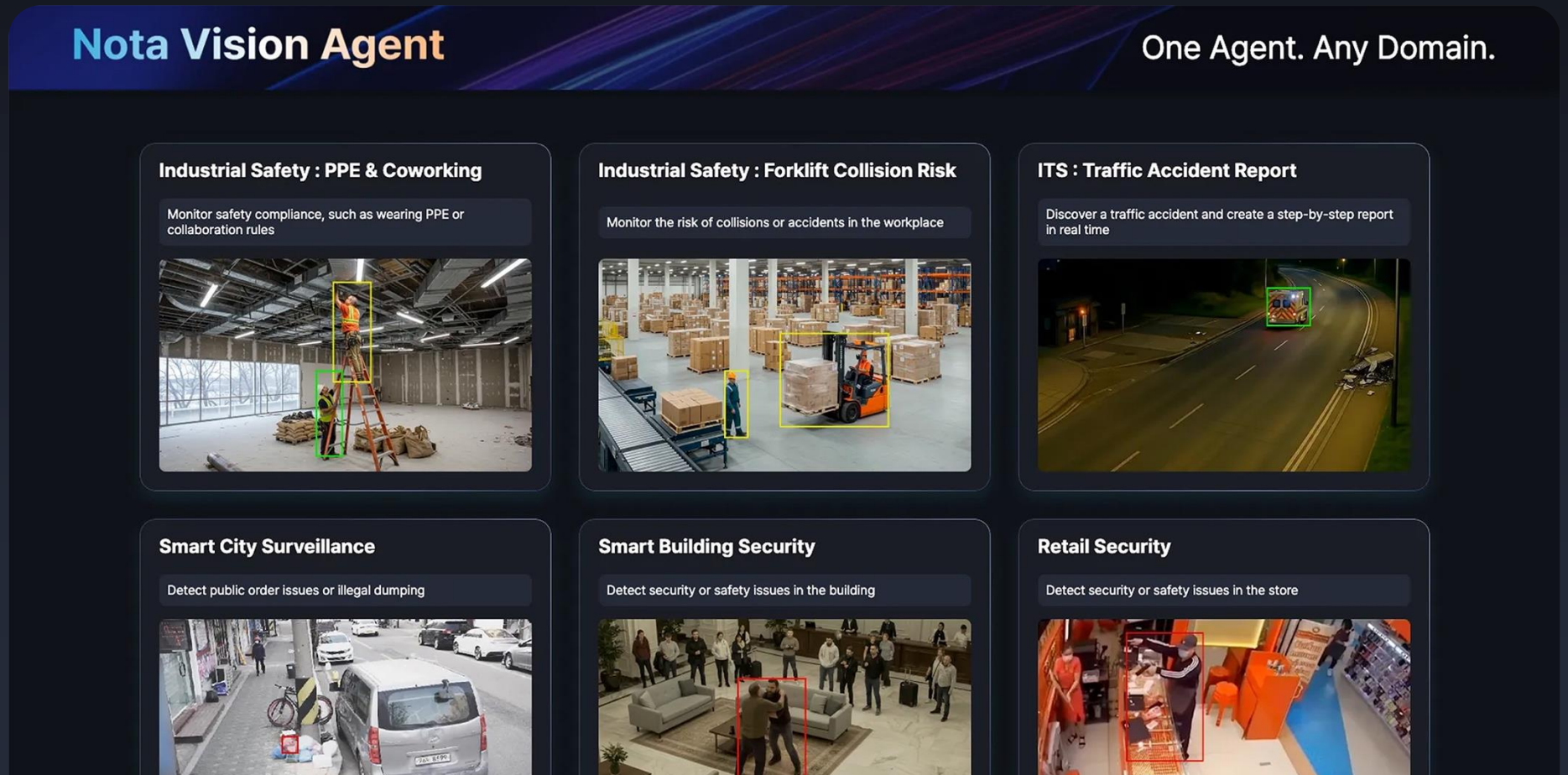
NVA

Nota Vision Agent

Nota AI

NVA (Nota Vision Agent)
A Generative AI-Powered Vision Agent

NVA (Nota Vision Agent) is a Vision-Language Model (VLM)-powered surveillance solution that autonomously perceives and understands on-site situations. It instantly detects and analyzes potential hazards from real-time video streams, dramatically enhancing safety management efficiency across industries.



Key Features

Real-time Contextual Scene Understanding

- Enables proactive awareness and accurate detection of previously unseen anomalies
- Delivers instant alerts to enable swift response and prevent accidents

Automated Prompt-driven Intelligence

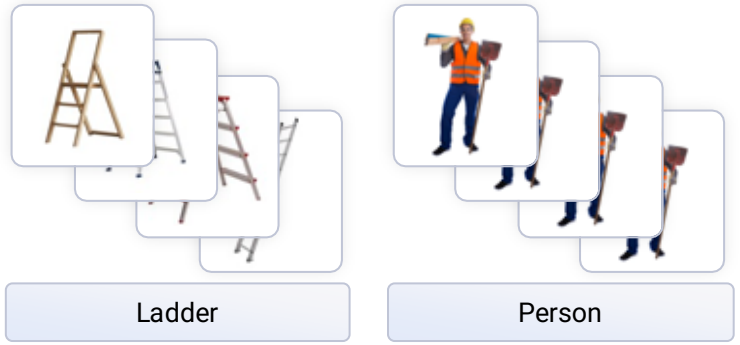
- Defines detection scenarios through natural language prompts
- Supports intuitive video search and auto-generated reports, reducing manual workload

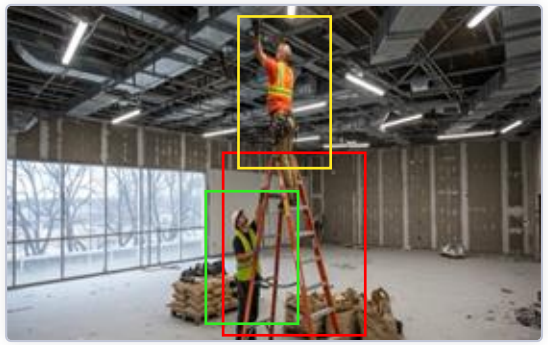
Edge-oriented Execution

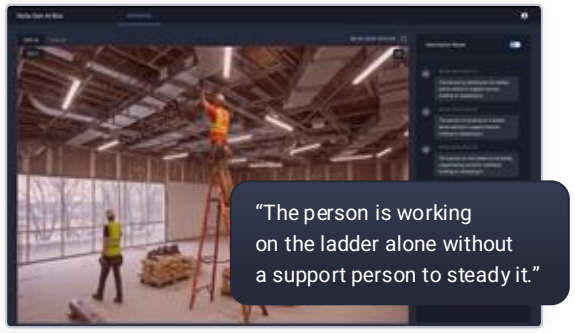
- Processes video data entirely on-site, ensuring privacy and compliance
- Delivers low-latency inference on resource-constrained hardware

Technical Capabilities

Combined Strengths of CV and VLM

	Detection Methodology	Strengths
CV	 Ladder / Person	High-speed, high-precision detection of trained objects Reliable for repetitive, rule-based detection tasks
VLM	 Two workers are working together using a ladder / Two workers are working together using a ladder	Interprets complex situations and environmental context Ideal for behavior and judgment-based detection





Proficient in Both CV and VLM, Nota AI Delivers Optimal Solutions Tailored to **Each Customer's Needs**

Technical Capabilities

Scenario-Based Model Application

#1

Well-Defined Object Detection

Detecting hazardous elements with distinct characteristic in specific areas

#2

Requiring Value Judgement

Analyzing and predicting potential damage levels or spread areas based on current condition

#3

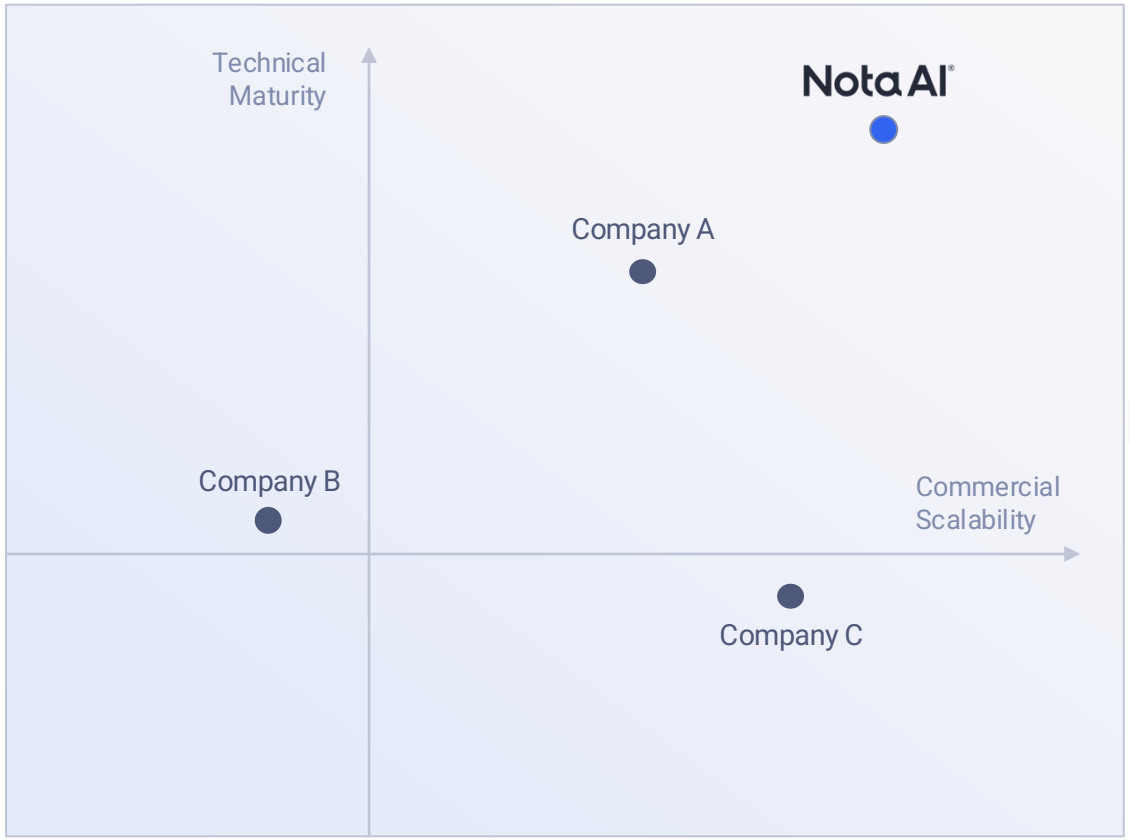
Behavior-Based Hazard Detection

Identifying potential risks such as SOP violations, negligence, and unsafe actions to proactively prevent incidents

Both **CV** and **VLM** Appropriate

VLM Required

Competitive Advantage



Evaluation Criteria

* **Technical Maturity**: Expertise in developing and deploying diverse Vision AI models
* **Commercial Scalability**: Proven ability to deliver end-to-end solutions from PoC to full-scale production

Market Positioning

Evaluation Criteria		Nota AI	A	B	C
Technical Maturity	VLM Capability	✓	△	X	X
	Vision Model Versatility	**High**	Limited	Low	Limited
	Edge Deployment	✓	△	✓	X
Commercial Scalability	Commercial Deployment	**High**	High	High	Limited
	End-to-End Delivery	✓	△	△	X
	PoC-to-Production	✓	✓	✓	△

Legend

✓ Available
X Not available
△ Partial

High: Multiple commercial deployments
Limited: Few deployments
Low: PoC-level only

Competitive Advantage

Key Differentiators

Multi-Model Vision AI Expertise

Ability to develop and deploy vision AI models—including VLM and CV—in the most effective combination for each scenario.

Edge Deployment Capability

Designed to operate reliably within constrained hardware and network environments, powered by proprietary AI compression and optimization technologies.

Proven End-to-End Delivery Experience

Validated through commercial deployments, scaling from PoC to full production systems.

Customer Benefit

Achieving High Detection Performance

- Combines various vision AI technologies to address a wide range of detection requirements
- Customizes model configurations based on site-specific characteristics and detection complexity

Maximizing Business Productivity

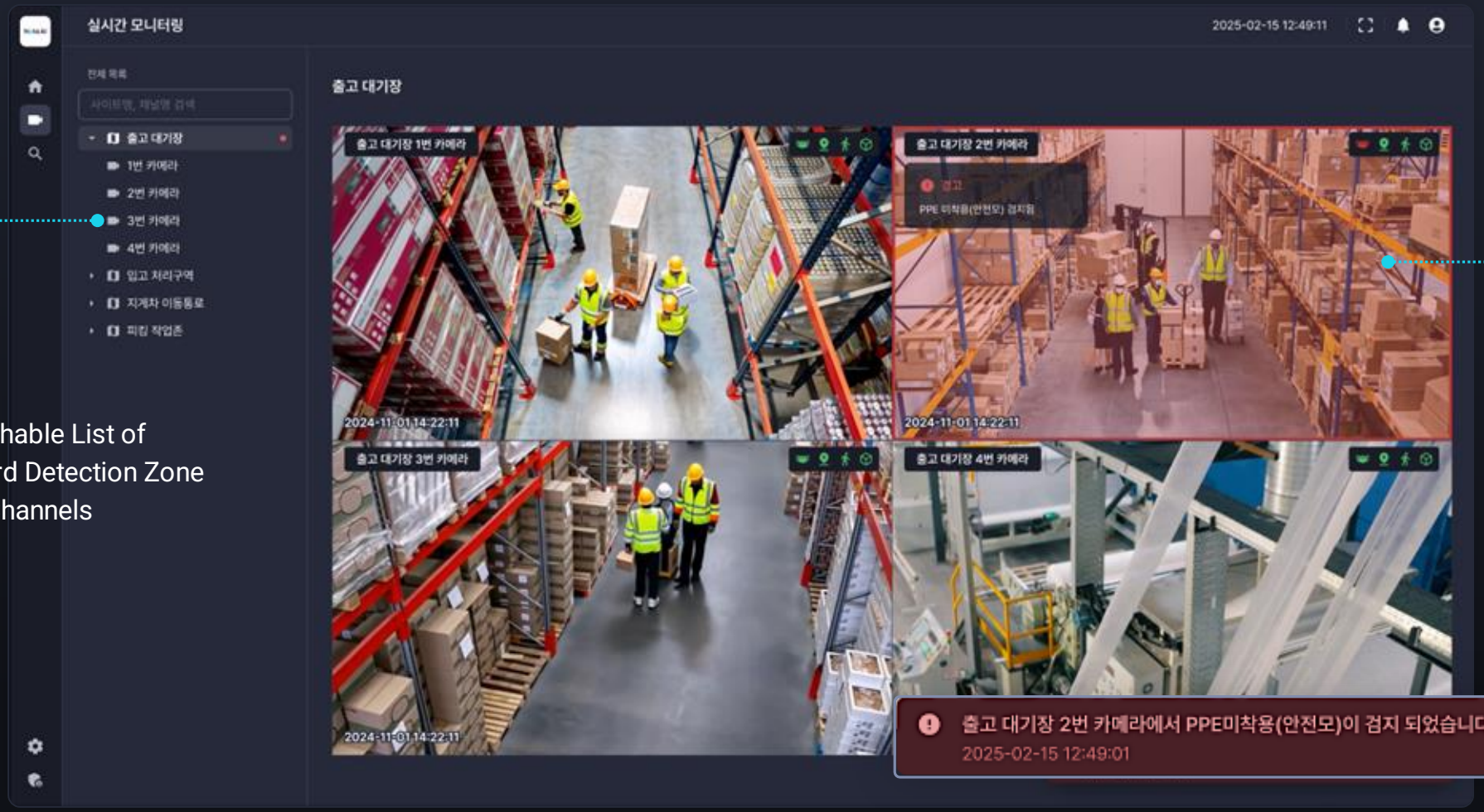
- Compatible with existing CCTV and video management systems without the need for additional equipment purchases
- Can be applied on-site within 2–3 weeks without complex pre-training

Improving Operational Efficiency

- Reduces administrative workload with features such as automated analysis reports and video search
- Enables efficient personnel allocation through automated CCTV monitoring

NVA In Action

Real-Time Monitoring



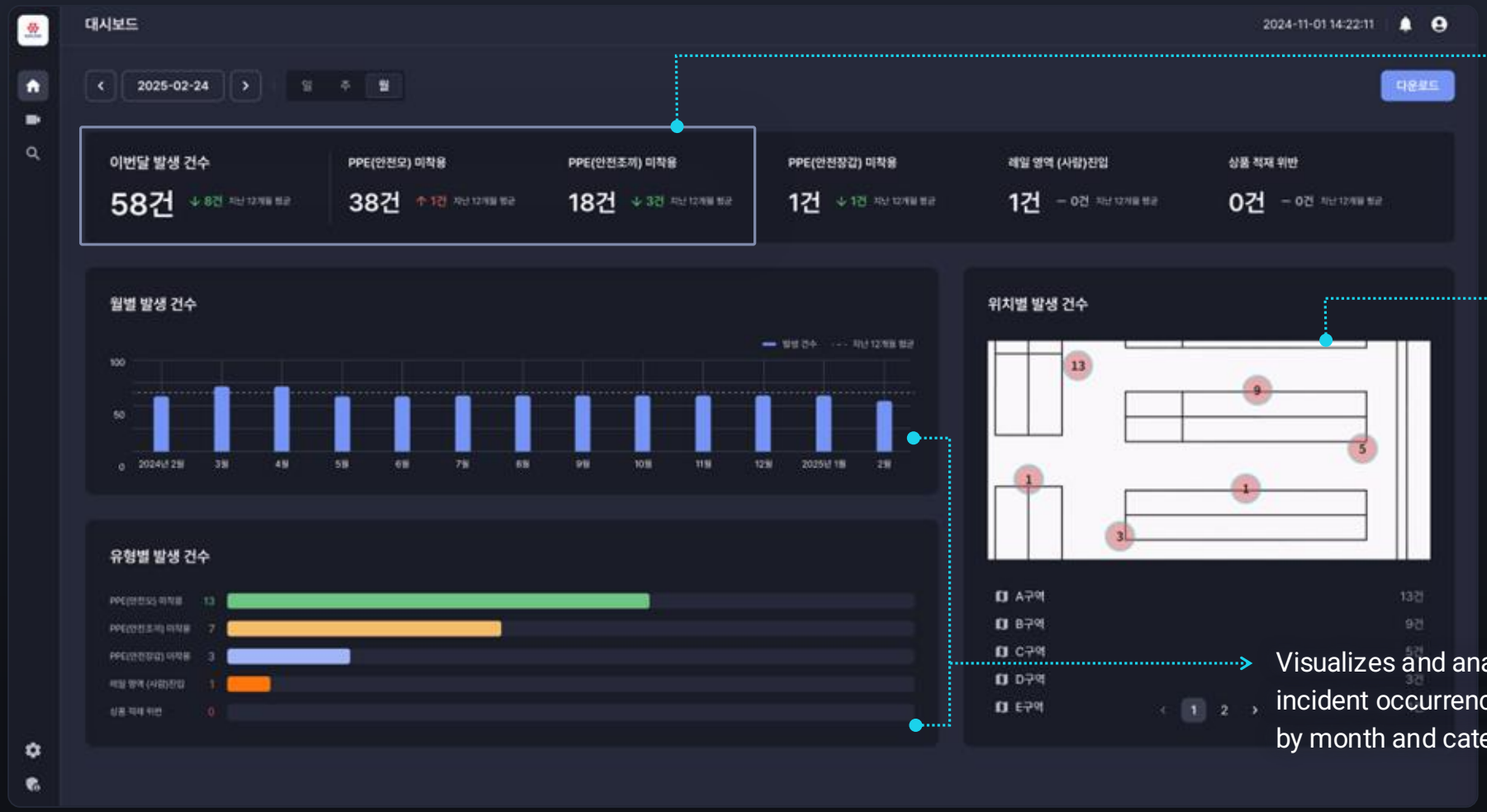
Searchable List of Hazard Detection Zone and Channels

Real-Time Hazard Alerts

- Enables proactive safety measures through integrated real-time alerts
- Allows monitoring personnel to respond immediately to detected hazards

NVA In Action

Dashboard



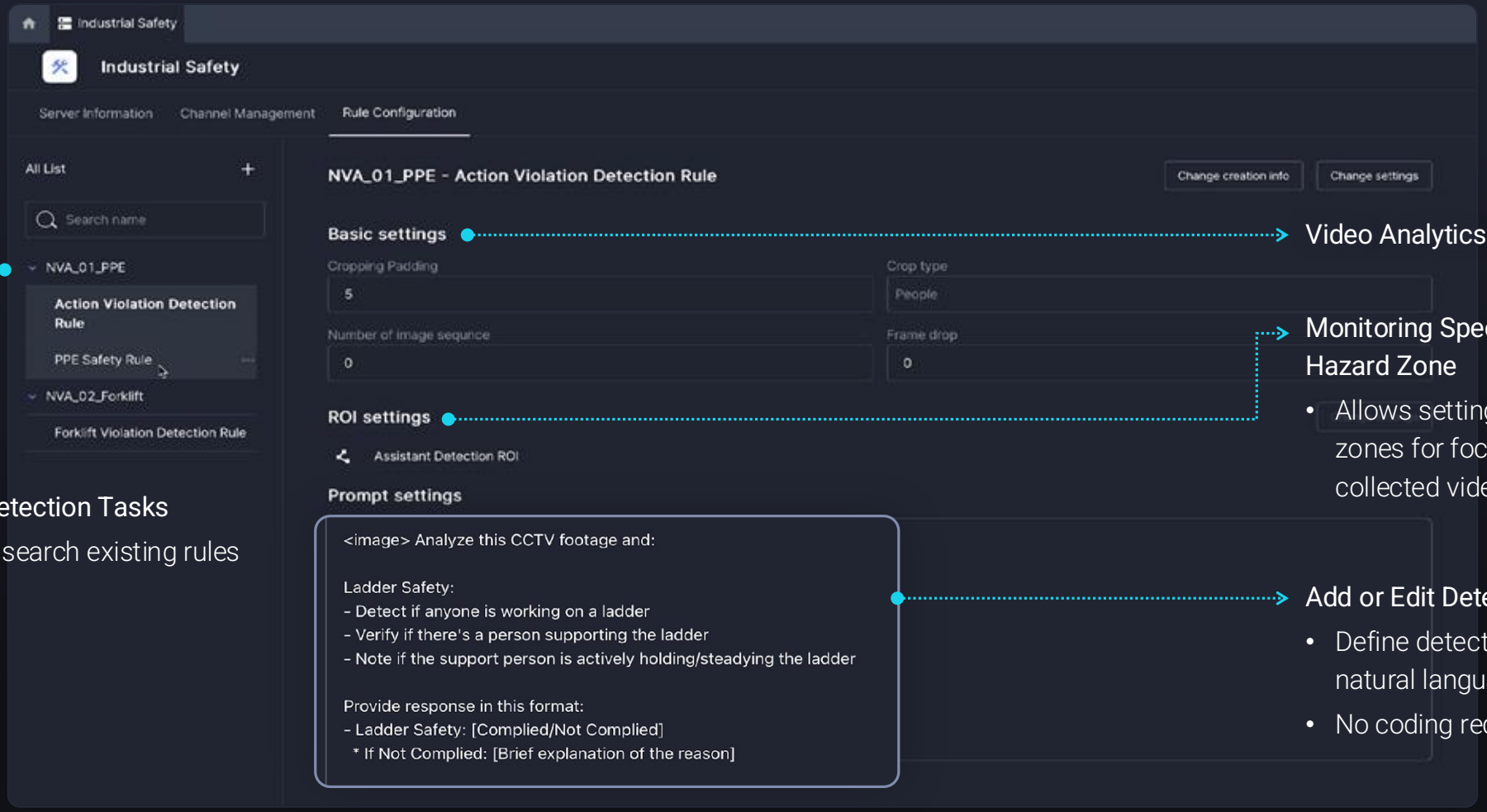
Industrial hazards are categorized, tracked, and converted into data

Displays the precise location of each hazardous incident

Visualizes and analyzes incident occurrence data by month and category

NVA In Action

Rule Setting



List of Detection Tasks

- Easily search existing rules

Video Analytics Setting

Monitoring Specific Hazard Zone

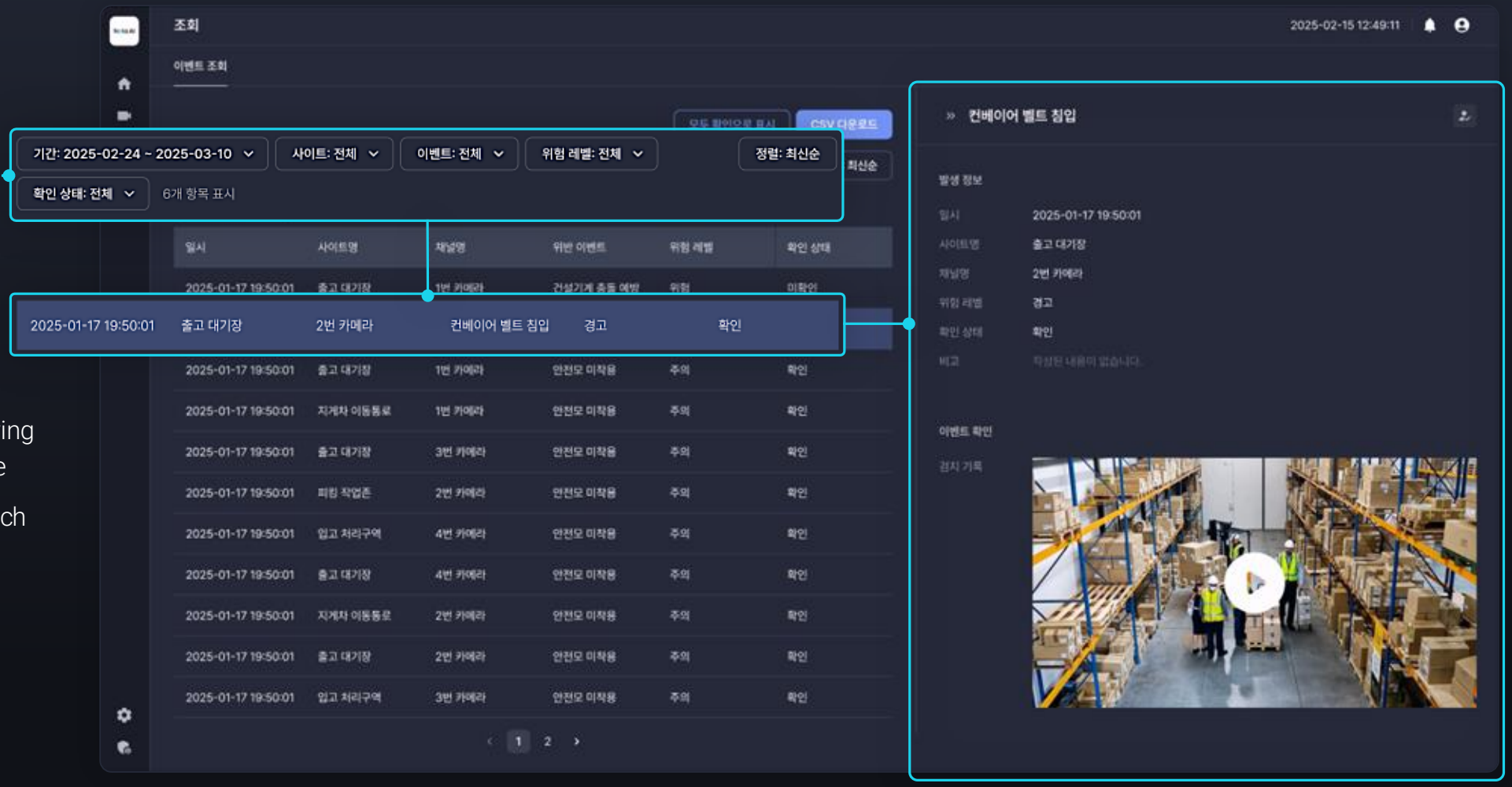
- Allows setting customizable zones for focused analysis of collected video and images

Add or Edit Detection Rules

- Define detection rules using natural language prompts
- No coding required

NVA In Action

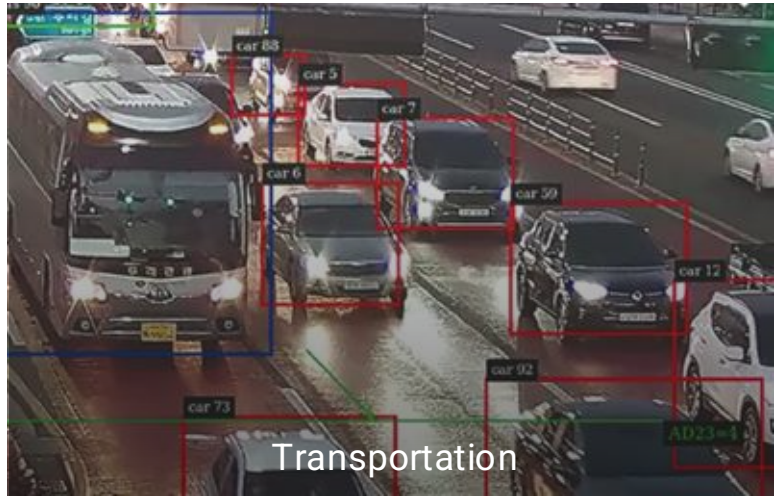
Incident Search

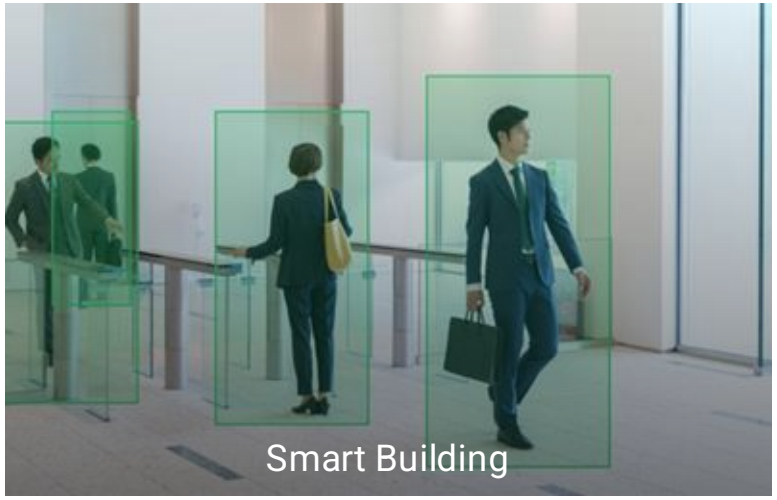


Search Specific Incident

- Search specific events by applying filters from all collected footage
- Supports natural language search
- Eliminates the need for manual review of all footage

Applicable Industries





Use Cases

Industrial Safety

Chemical & Textile Manufacturer “K”

Challenge

Problem 01

Traditional monitoring systems lack the ability to interpret complex worker behaviors

Problem 2

Personal protective equipment (PPE) violations and unsafe behaviors often go unnoticed until incidents occur

Solution

Equipment Interlock
as a potential safety mechanism to halt machinery in hazardous zones

SOP Compliance Monitoring
detects violations such as improper cleaning, incorrect loading, and floor-level repackaging through VLM-powered analysis

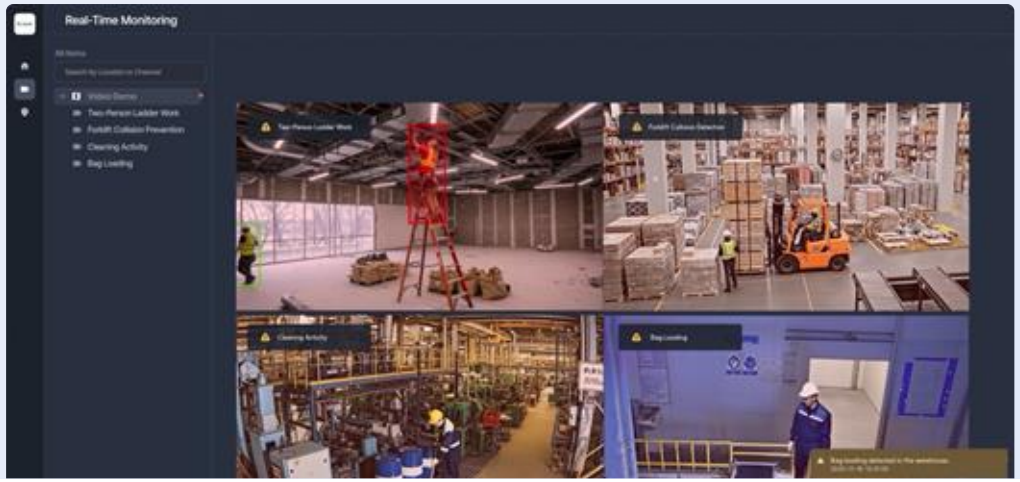
Result

Proactive Accident Prevention

Proactively detects and blocks human error-based hazards, preventing accidents at the source

High SOP Compliance Accuracy

Achieved F1 Score of 85+ for SOP compliance accuracy across all tested tasks



Use Cases

Surveillance

Municipal Government "G"

Challenge

Problem 01

Illegal dumping is difficult to monitor consistently across widespread public areas

Problem 2

Smoke and burning activities often go undetected until fire incidents escalate

Solution

Edge-deployed NVA
detects smoke and burning activities to prevent fire incidents in real-time

Contextual video intelligence
identifies illegal dumping behaviors that traditional monitoring systems miss

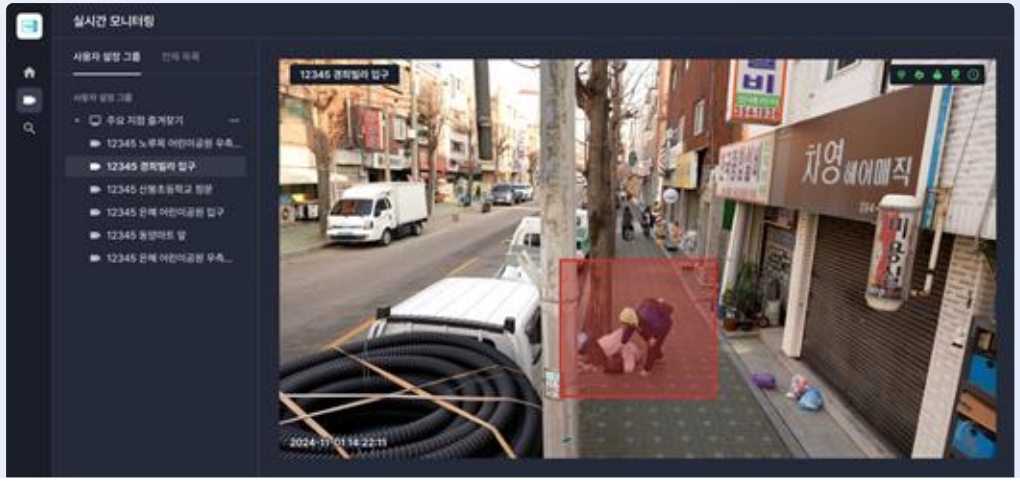
Result

Enhanced Public Safety Response

Improved response efficiency for public safety incidents

Privacy-Compliant Monitoring

Enabled consistent monitoring while maintaining strict privacy and data governance compliance



Use Cases

Transportation

UAE Roads and Transport Authority

Challenge

Problem 01

Rapid detection of road incidents is critical across vast highway networks with high-speed traffic

Problem 2

Cloud-dependent systems pose challenges in latency, operational costs, and data security compliance

Solution

VLM-powered NVA
detects road incidents and anomalies in real-time directly on edge devices

On-device processing
ensures minimal latency while maintaining strict data privacy and security standards

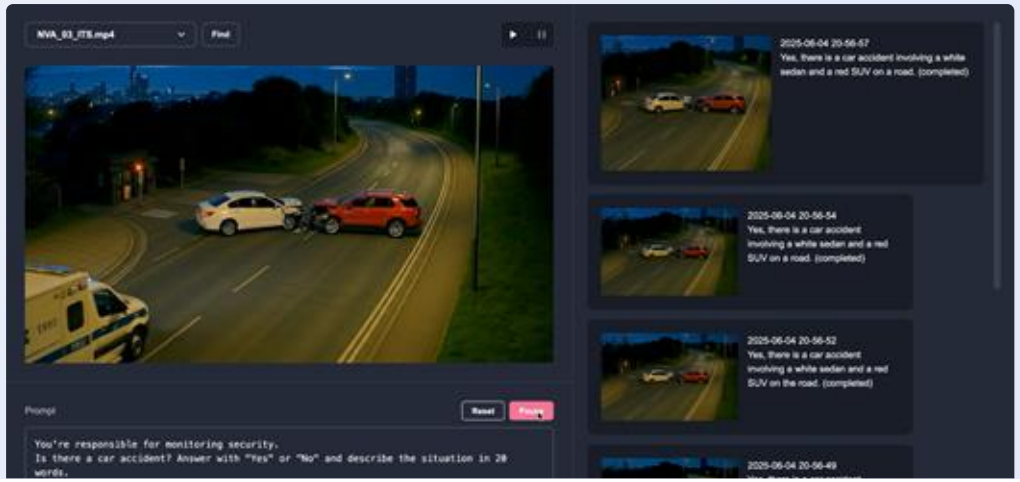
Result

High Incident Detection Accuracy

Achieved 95%+ accuracy in road incident detection during PoC validation

Operational Cost Efficiency

Reduced cloud dependency, lowering operational costs while enabling real-time response



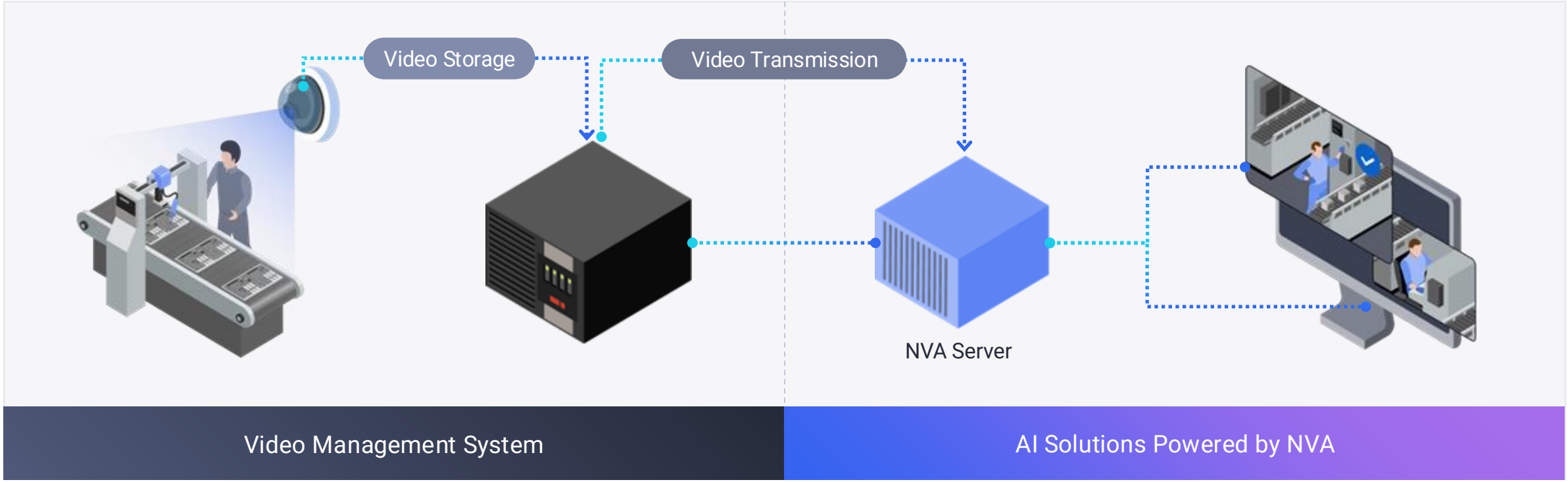
Pipeline

No additional equipment required

Easily integrate by connecting the ‘NVA server’ to existing video management systems.

Rapid On-Site Deployment

NVA can be rapidly implemented in the field within just 2–3 weeks, without complex pre-training processes.



Nota AI