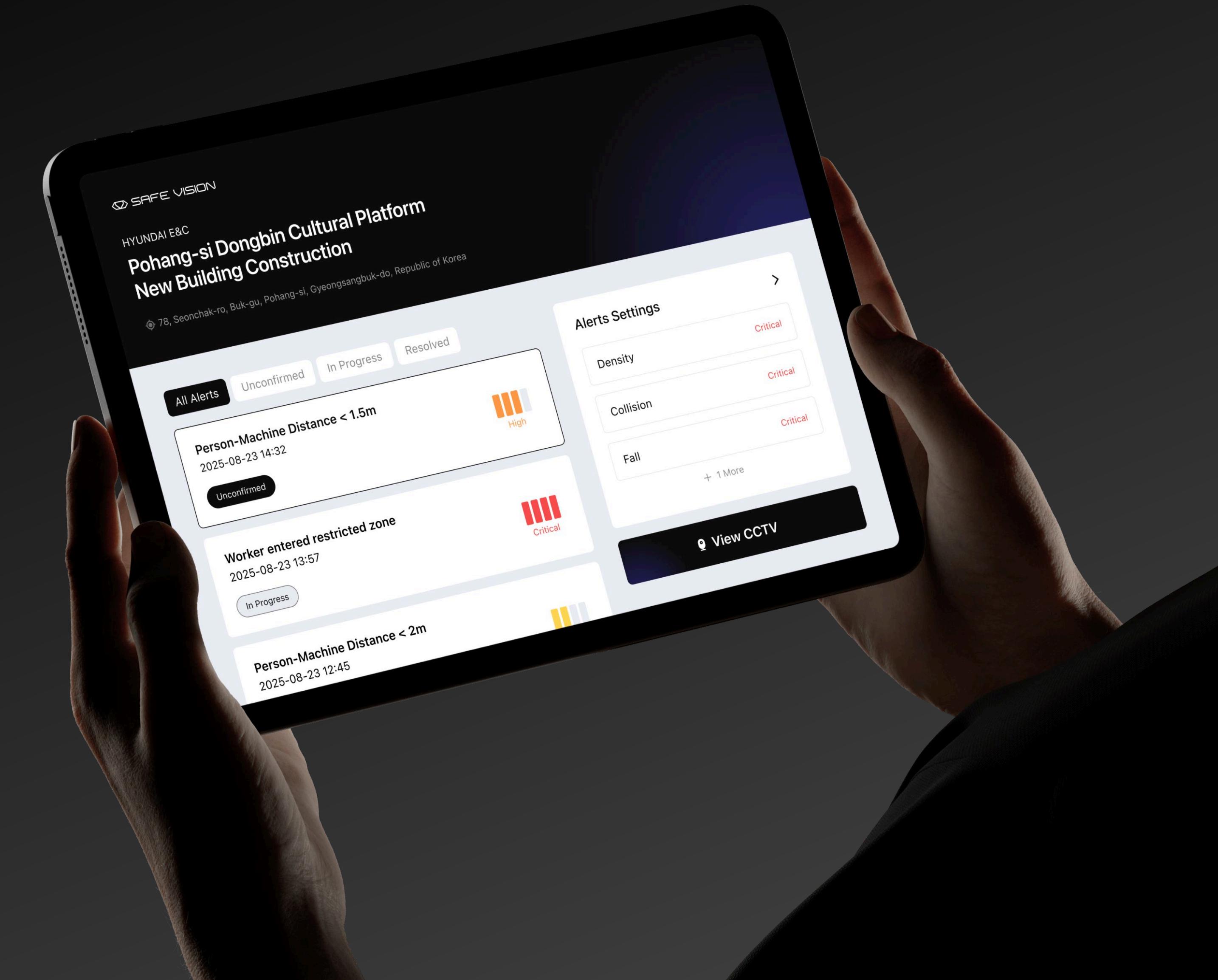


HYUNDAI E&C SAFE VISION SMART SAFETY DETECT SYSTEM



Wave Makers

DEVELOPER Dogyung Kim Jaejun Lee

DESIGNER Sumin Lee

PLANNER Seungri Choi



Industrial accidents continue due to
a lack of systematic safety management.

안전 + 제

안전

제

Limitations of Current CCTV Monitoring Systems



Low focus on
multiple feeds



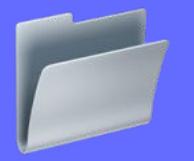
Inconsistent
operator judgment



No feedback
after judgment



Lack of
real-time alerts



Post-incident
evidence only

Detect Danger Situation by analzing CCTV video with AI

SAFE VISION
HYUNDAI E&C
**Pohang-si Dongbin Cultural Platform
New Building Construction**
78, Seonchak-ro, Buk-gu, Pohang-si, Gyeongsangbuk-do, Republic of Korea

All Alerts Unconfirmed In Progress Resolved

Person-Machine Distance < 1.5m
2025-08-23 14:32 
Unconfirmed

Worker entered restricted zone
2025-08-23 13:57 
In Progress

Person-Machine Distance < 2m
2025-08-23 12:45 

Alerts Settings >
Density Critical
Collision Critical
Fall Critical
+ 1 More



← Person-Machine Distance < 1.5m


Live Cam 3

Info

Time	2025-08-23 14:32
Risk Level	High
Camera ID	Cam 3
Status	In Progress

Acknowledge **Resolve**

Detect Danger Situation Using CCTV video with AI

Expacted Impact

AI SMART VISION

HYUNDAI E&C

Pohang-si Dongbin Cultural Platform
New Building Construction

8, 10, Dongbin-ro, Dong-gu, Pohang-si, Gyeongsangbuk-do, Republic of Korea

All Alerts Unconfirmed In Progress Resolved

Person-Machine Distance < 1.5m
2025-08-23 14:32
Unconfirmed

Worker entering the site
2025-08-23 13:57
In Progress

Person-Machine Distance < 2m
2025-08-23 12:45
Unconfirmed

Alerts Settings

Density Collision

View CCTV

Person-Machine Distance < 1.5m

2025-08-23 14:32

Risk Level: High

Camera ID: Cam 3

Status: In Progress

Info

Time: 2025-08-23 14:32

Risk Level: High

Camera ID: Cam 3

Status: In Progress

24/7 Unmanned Monitoring, Centralized Management System

Limitations of Existing Intelligent CCTV

**1 Focus only on
the current situation**

Existing simple VLM-based analytics products)



**Continuous detection
of changing situations**

NLP-based situation detection technology

**2 Hard-to-detect
on-site situations**



**Users set real-time
NLP rules to adapt**

**3 Skipped maintenance
causes performance drop**



**Serverless cloud
reduces upkeep**

al Platform

1

gbuk-do, Republic of Korea

s Resolved



High



Critical

Alerts Settings ×

Type

Density

Description

When machines and people are within
3 meters

Risk Level

Low (Green bar icon)

Medium (Yellow bar icon)

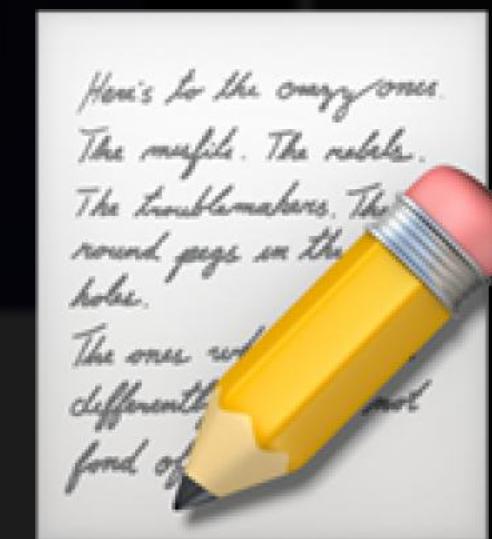
High (Orange bar icon)

Critical (Red bar icon)

Save

Easy Addition and Management of Danger Detection Rules

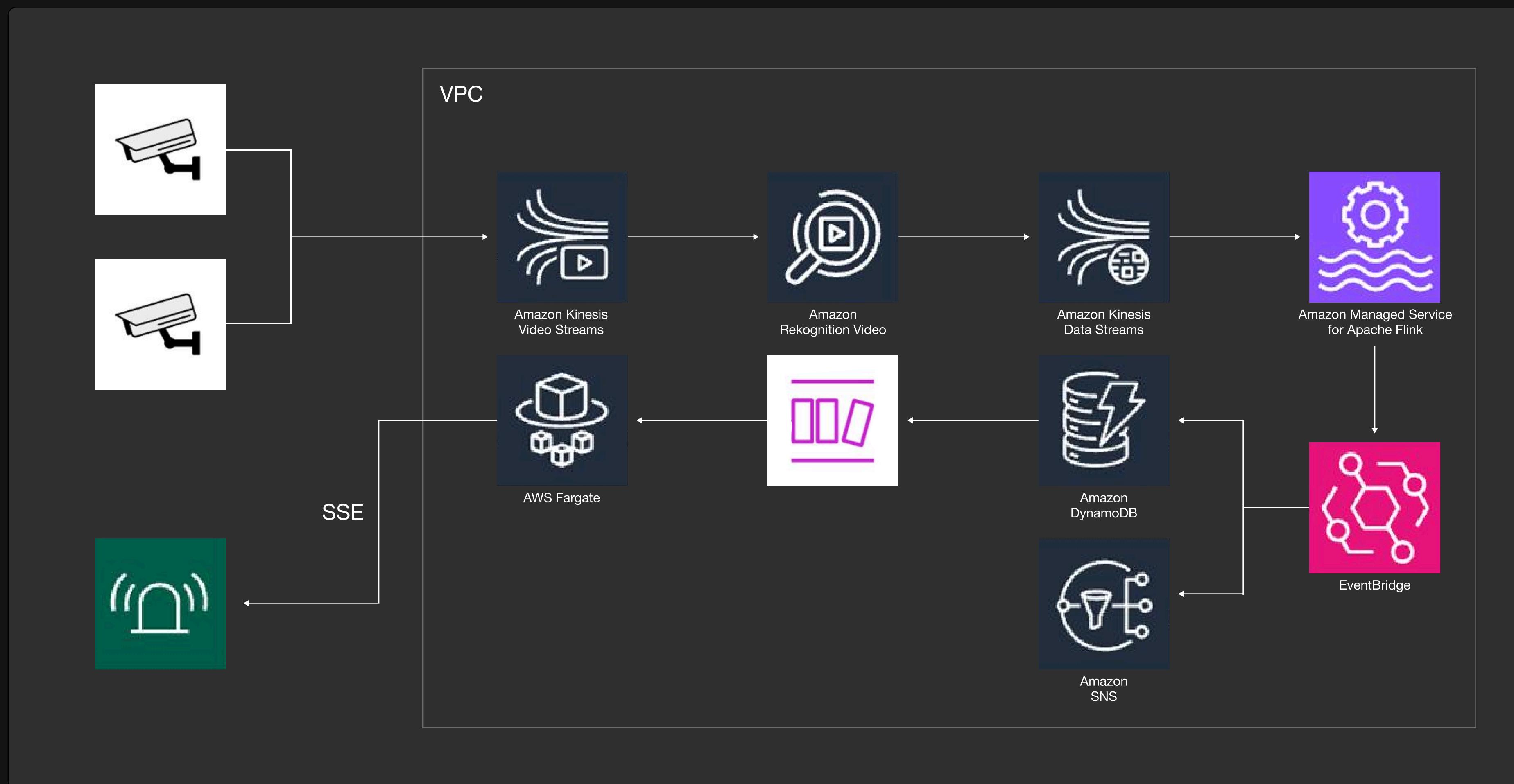
Expacted Impact



Easy Addition and Management
of Danger Detection Rules

Context-aware Detection

MAP Architecture





THANK YOU