5G Edge Partner Program

Kogniz empowers organizations to proactively tackle critical safety and security challenges using computer vision and AI.

The annual cost of managing safety and security puts enormous strain on companies. U.S. businesses spend more on lost-time workplace injuries than the GDP of 91 countries, according to the World Bank.[1]

Safety, security, and operational incidents cost billions of dollars annually.[2]

For years companies have relied on people to inspect and evaluate equipment, products, safety, and operations. Unfortunately, the human eye and attention span have limitations that have resulted in billions of dollars in losses annually.[3] Now there's a better way to help your business run smarter, increase profits, and enable employees with critical information to be more productive.

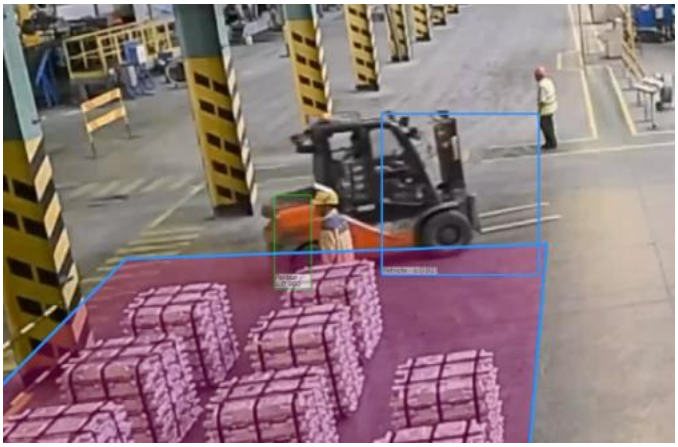
Modernizing safety and security technology is mission-critical to meet today's demands.

Kogniz empowers your organization to tackle its most important safety and security challenges using advanced computer vision and AI. The SaaS-based Kogniz platform automatically detects unsafe and concerning security incidents using your existing video camera infrastructure.

The Kogniz platform

Kogniz offers a holistic platform for safety and security that harnesses the power of AI and computer vision to transform your safety, security, and operations.

Designed for easy rollout and integration, Kogniz helps companies solve security and safety issues that previously seemed impossible to fix.



The Kogniz platform for safety and security with a product suite for exponential gains

Kogniz Computer Vision is a configurable detections library that addresses the vast majority of safety and security needs.

It instantly detects, alerts, and helps you better respond to and report on safety and security incidents 24x7 in manufacturing, distribution, and retail settings, including but not limited to:

- Perimeter intrusions
- Person in unsafe or restricted areas
- Occupancy limits
- PPE violations
- Dangerous proximity
- Slips and falls
- Other concerning incidents

Kogniz Defect Detection monitors defects in real-time 24×7 to keep production flowing, maintain product quality control, and reduce the risk of accidents and injuries. It helps increase the quality, consistency, and frequency of visual inspections, so inspectors can spend more time on the most important issues.

Kogniz Vehicle Awareness helps you gain visibility into the numbers and types of vehicles entering and exiting your locations–from distribution centers to parking lots to garages–and what they can do, putting your organization in the "driver's seat" of your security and operations.

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Highlighted Features

Library of configurable, pre-built detections: Flexibility to decide what you want to detect

Real-time detection, 24×7, where your cameras can see: Monitor what's important when it matters most

Reporting & dashboards with real-time information: Share reports and dashboards to identify where attention is needed

Workflow automation engine: Automate the response to incidents after they're detected

Alerts and two-way communications: Actionable information for decision-making when every second counts

Integration with camera and software systems: End-to-end integration with popular software and open APIs to simplify onboarding

Key Benefits

Kogniz helps organizations to continuously monitor for safety incidents using installed cameras so you can:

Identify safety incidents as they happen: Respond more quickly when unsafe or concerning incidents occur

Receive actionable, real-time alerts: Get immediately notified via SMS, phone call, email, or Slack

Gain insights to prevent and proactively respond to incidents: Reduce risk and potential losses from preventable safety issues

Increase the ROI on existing investments: Get more out of the cameras, access control, and HR systems you already use

Increase monitoring without increasing staffing: Detect when your workforce can't watch—after hours, during breaks, shift changes–without hiring

Rely on consistent, focused attention: Maintain a constant attention span that doesn't tire

Case study - Industrial Defect Detection

Conveyor Belt Defect Monitoring

Kogniz partners with a large mining operation that has hundreds of miles of conveyor belts stretching across underground shafts. Conveyor belts in high-stress environments are prone to wear and tear, particularly along the belt splices. Tears in belt splices can lead to dangerous working environments and costly work stoppages.

Industry best practices suggest that operators should visually inspect all belts for tears and signs of breakdown every 30 to 60 days. Due to the extensive length of conveyor belts in use and the difficulty of reaching remote areas of the mine shaft miles underground, visual inspection is a difficult, time-consuming, and costly effort.

Kogniz's team collaborated with the client's maintenance team to identify and position specialized cameras above underground conveyor belts. Leveraging Computer Vision, Kogniz trains Machine Learning models to recognize conveyor belt splices, or sections of the belt, and then identify wear and tear or fraying in the belt splices.

When a potential tear is identified, operators can remotely access and review footage of the belt and, if necessary, dispatch underground crews for manual inspection and repair. Automated belt inspections performed by computer vision will save the company hundreds of staff hours each quarter, improve safety, and potentially mitigate the risk of injuries and unplanned downtime due to conveyor belt failure.

Kogniz can train custom computer vision models to visually inspect equipment & physical products in manufacturing environments for signs of breakdowns or defects in a matter of weeks. Our approach is best applied to products and machinery with a consistent appearance where defects or signs of breakdown are readily apparent.

The combined solution can help customers leverage Kogniz's computer vision capabilities to drive operational and safety efficiencies across production and labor using Verizon's 5G networks.

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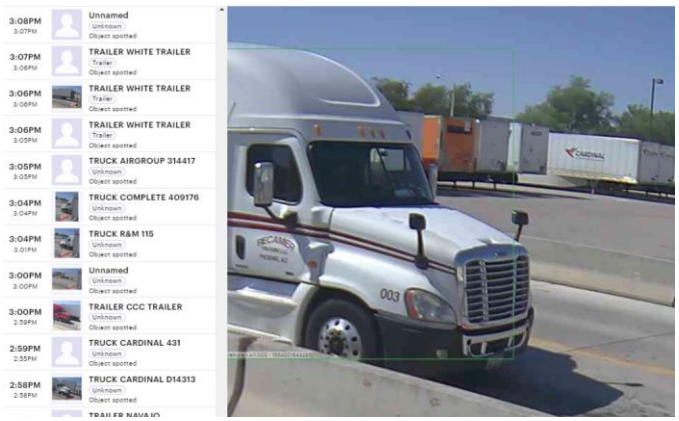

Case study - Vehicle Awareness

Improving Situational Awareness while Reducing Theft & Costly Shipment Errors

A $7 billion retail chain lost hundreds of thousands of dollars in 2020 due to missing delivery trucks. Like many mid-sized retailers, the company relies on independent contractors and trucking companies to deliver products to its seven distribution centers and 1,600+ stores. However, their distribution centers were losing track of several shipments at $45,000 per missing shipment every month. Each time a trailer went missing, the operations and security teams would have to sift through stacks of handwritten entry and exit slips and walk the lot to find the missing shipment.

The retail chain partnered with Kogniz to automate the vehicle entry and exit process by installing cameras at vehicle entrances and exits. Now, as trucks enter and exit the lot, cameras mounted at the gate use Optical Character Recognition to capture and log the vehicle identification numbers of the truck and associated trailer. Users can see a real-time log of trucks and trailers on the lot, and search for trucks and trailers in the Kogniz platform to determine the dates & times of exit and entry, paired vehicles, total time spent on the lot, and vehicles that have not moved in several days. An overview dashboard also improves situational intelligence by providing a real-time understanding of the number of trucks and trailers currently on the lot.

Kogniz can extend the capabilities of our computer vision platform by integrating with related systems via our open API. For example, Kogniz can integrate with delivery scheduling software to confirm deliveries arrive at the scheduled time and with supply chain & warehouse management systems to automate the process of checking-in deliveries and updating inventories.

Case study - Large Convention Center

Better experience for event sponsors, speakers, and attendees with foot traffic and parking insights

To ensure survival during the COVID-19 pandemic, a convention center sought help from Kogniz to find a way to reopen while following safety protocols. The convention center first rolled out Kogniz's social distancing and occupancy monitoring that integrated with installed cameras and systems. The center later expanded its use of Kogniz to improve attendee and parking insights, operations, and security.

Kogniz monitors occupancy by counting persons and vehicles entering the facility using cameras positioned at all entrances. In both cases, the total occupancy is calculated based on the net flow of traffic across all entrances.

The center uses Kogniz's occupancy monitoring and reporting dashboards to track foot traffic to better understand the events, topics, and speakers that drive interest. During the events, real-time data can also be offered as a service to help event sponsors deliver enhanced experiences to attendees– sending more lunches, materials, or gift bags to high occupancy rooms or repeating popular sessions.

Previously, attendees and speakers were frustrated by parking challenges–not knowing where to park, garages being full, and not knowing where to go. The counting system was laborious and costly with security guards manually counting parked cars by floor in two parking garages, writing the numbers down, and sharing that over a radio. By the time drivers looking for parking received the information, it was often outdated.

With Kogniz, the cars are automatically counted upon entering and exiting the parking facility, by floor, and parking is updated in real-time, so attendees and speakers get the latest parking information and security guards can instead focus on keeping the event and parking facilities more secure.

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Sample customers [4]

Featured Integrations

About the 5G Edge Partner Program

The 5G Edge Partner Program aims to accelerate 5G Edge adoption and development by partnering with best-in-class, cross-industry application providers and developers who will change how we live, work, and play. Verizon was the first in the world to launch a 5G mobility service for customers in 2019 and continues to work with partners to lead the development of the 5G ecosystem.

Why Verizon and Kogniz

The power of Verizon's 5G network, combined with our Edge infrastructure and the Kogniz computer vision platform delivers a bundled solution that's secure, scalable, and easy to deploy.

Together, we create tangible value of AI-enhanced security and safety. The solution is deployable virtually anywhere without the need for onsite hardware supported by IT resources, and it's all available on a single Verizon bill and contract.

With Verizon, you can count on:

Superior coverage: Our 4G LTE network covers 327 million people; that's over 99% of the U.S. population

5G innovation: Verizon 5G Ultra Wideband gives you ultrafast speeds, with low lag and massive capacity

Trusted security: Managing over 500,000 security networks and hosting devices gives us valuable insights into the digital landscape

Expansive focus: We obsess over the details, analyzing millions of gigabytes of data every day

Easy integration: We've certified 900+ machine-to-machine (M2M) chipsets, modules, and devices

Tools

Verizon 5G Edge Developer Portal

Verizon Open Source

Learn more

To find out more about how Kogniz and the Verizon 5G Edge Network can transform safety and security, contact us directly at:

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5g@kogniz.com

Links and references

(1) https://www.ehstoday.com/safety/article/21917315/us-companies-pay-62-billion-per-year-for-workplace-injuries

(2) 2022 Retail Security Survey: https://cdn.nrf.com/sites/default/files/2022-09/National%20Retail%20Security%20Survey%20Organized%20Retail%20Crime%202022.pdf

(3) https://www.avigilon.com/news/white-papers/enhancing-human-attention-span-with-self-learning-video-analytics

(4) Partner customers are not necessarily Verizon customers, and it is not being implied. More information on the partner's website.

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