

**Logistics**  
MANAGEMENT.

# Driving the Risk Out of Line Haul Fleet Management with AIoT technologies



How Hikvision's Line Haul Management Solution boosts productivity,  
improves safety and minimizes transportation risks.

**HIKVISION**<sup>®</sup>

**L**ogistics service providers, carriers and private fleet managers around the globe are dealing with an unprecedented number of challenges right now.

Supply chain disruptions, unpredictable order volumes, the uptick in e-commerce orders and changing customer expectations are all creating new roadblocks and opportunities for global organizations. Limited freight capacity, persistent driver shortages and fluctuating fuel costs are only adding to the already lengthy list of challenges that fleet managers face on a daily basis.



One bad weather event, distracted driver or traffic jam can also significantly impact the smooth running of the supply chain. In order to minimize transportation risk, maximize security and better understand driver performance—all of which help improve operational efficiency—organizations need unified security and intelligent solutions that can readily adapt to any scenario or requirement.

The traditional GPS solutions that fleets have relied on aren't enough to stand up to and conquer these new challenges and requirements. By combining artificial intelligence with the Internet of Things ("AloT"), solutions providers are helping fleet managers leverage technology to both overcome current obstacles and better plan for the future.

With AloT as a foundation, organizations can use intelligent sensors to embed intelligence into vehicles and freight, assisting their fleet management. They'll have the data they need to both analyze and improve safety and efficiency, and be able to manage their fleets and drivers in real-time using advanced dashboards.

By adding smart video to their assets, logistics operators can remotely check the latest status of their end-to-end transportation process, easily track back evidence when an incident occurs, and ensure 24/7 safety of drivers, cargo and vehicles.

## Maximizing Productivity, Reducing Risks

Global supply chains, high demand for manufactured goods and increasingly short delivery expectations are all driving growth in the logistics industry. In the U.S. alone, trucks move about 72.5% of the nation's freight by weight and represent \$732.3 billion in gross freight revenues (more than 80% of the nation's total freight expenditures).

With a wide variety of goods and materials constantly moving through their facilities, logistics managers have to be able to maximize productivity and performance while also reducing risks and costs. By enhancing the security of cargo from the minute it leaves the dock or yard until it reaches a final destination, smart video helps shippers achieve these goals and operate safer, more secure line haul operations.



Using an all-in-one solution that includes both hardware and software, Hikvision solutions help logistics operators stay on top of in-transit status and give them the insights they need for good decision-making and risk reduction.

Hikvision's solution covers all the bases with: A security module for real-time vehicle status management; an advanced driver assistance system (ADAS) module for driver protection and assistance; and flexible solutions with assorted sensors for property management and protection.

## Real-time Vehicle Status Management & Post-event Video Evidence

By centralizing core functionalities like smart video recording, footage playback, real-time vehicle positioning and other key data points on a single dashboard, Hikvision's solution takes the guesswork out of line haul fleet management and helps organizations do more with less. The platform also provides a range of reports that operators can access to attain high levels of visibility across their transportation networks, handle emergencies quickly and make smart decisions.

When companies replace their standard, GPS-based tracking systems with smart video solutions, everyone wins. For example, determining the cause of an accident can be difficult, which makes it hard to exonerate innocent drivers. Using real-time GPS positioning and event video evidence, operations managers can know the latest status of their vehicles.

And abnormal situations, such as route deviation and traffic accidents will be updated to management center in a timely manner. During emergencies, drivers can also notify the platform using a convenient alarm button or by speaking directly through a two-way intercom.

Using real-time vehicle status record, these smart solutions also create a trail of historical proof of exactly what happened when a vehicle was on the road, out in the yard or at the loading dock. They continually record video to provide evidence of incidents, so operators can browse alarm records or timestamps to easily find exactly what they're looking for.

## Driver Protection & Assistance with the Intelligent ADAS System

Primarily focused on collision avoidance technologies (for example, lane departure warning and blind-spot applications) and driver aids, such as night vision, driver alertness and adaptive cruise control, ADAS helps reduce the number of accidents while also lessening the impact of unavoidable accidents.



Truck drivers often spend long hours behind the wheel, deal with unexpected traffic perils and drive through inclement weather conditions. These and other external, unpredictable factors can interfere with safe driving.

Realizing that at-risk driving is extremely dangerous for drivers, cargo and road safety in general, Hikvision makes intelligent driving assistance systems that incorporate forward collision warning (FCW), lane departure warning (LDW), pedestrian collision warning (PCW), blind spot detection (BSD), headway monitoring warning (HMW) and driving analysis.

A 360° panoramic camera with all-around views detects potentially-dangerous driving patterns, deviation from intended routes, vehicles in the tractor-trailer's blind spot, pedestrian activity and other risks. The solution also helps reduce the amount of damage, vandalism and/or theft that cargo may be subjected to as vehicles make their way from origin to destination.

## Enhanced Fuels & Goods Management with Assorted Sensors

Hikvision's solution include flexible solutions with assorted sensors to help secure their fuels and transported goods. Container door status sensors, temperature sensors, and fuel level sensors and so on — all of which work together to help shippers drive risk out of their line haul operations.

For example, logistics managers can use the solution to easily inspect the rear door status throughout the journey to ensure that all goods are intact during transit. For cold chain services, temperature sensors are added to help check container temperatures to maintain product quality, with temperature history and real-time alarms for abnormalities. And, the fuel level sensor can identify a sudden drop in fuel level, which might be caused by fuel theft or leakage. They can also analyze fuel usage across the transportation process.



## Improving Logistics Operation Performance and Efficiency

In the current business environment, shippers, carriers and logistics service providers need timely, accurate and comprehensive status updates on their drivers, trucks and cargo. They also need to enhance in-transit timeliness and security while also managing costs. Achieving that balance isn't always easy, but smart video helps organizations overcome that challenge by minimizing transportation risks, maximizing security and providing valuable insights into driver performance and operational efficiency.

By transforming moving vehicles into intelligent terminals that both report back instantly and provide a historical data trail for future use, smart video helps companies improve the efficiency of their line haul fleets and achieve their business goals. By providing quantifiable metrics like driver performance, fuel consumption and on-time delivery rates, Hikvision's intelligent solutions help line haul operators make better decisions, manage during times of uncertainty and maximize their operations' growth potential.

Evaluating individual driver performance can be difficult, and particularly when any isolated data gathering doesn't accurately reflect the state of the operation. By combining smart video with performance and operations analysis, Hikvision's solutions provide the reports and alerts that operations managers need for good decision-making.

Besides line haul solution, Hikvision also offers an all-encompassing solution to build safer and smarter logistics facilities and yards that not only improve comprehensive safety through video security, access control, vehicle management and warehouse fire protection solutions, but also enhance management efficiency.

Using a single professional platform with visualized interfaces, companies can also improve dock scheduling and track parcels as they move through facility and yard. Please download the [LM & Hikvision White Paper: How to Improve Logistics & Yard Visibility with Smart Video](#) to learn more.



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**Hikvision** has established one of the most extensive regional networks in the industry, comprising 66 international subsidiaries and branch offices to ensure quick responses to the needs of customers, users, and partners. Customers can [contact us](#) to discuss their specific requirements and we'll be happy to help. To find out more about the Hikvision smart logistics solution, please visit [here](#).

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