Videonetics

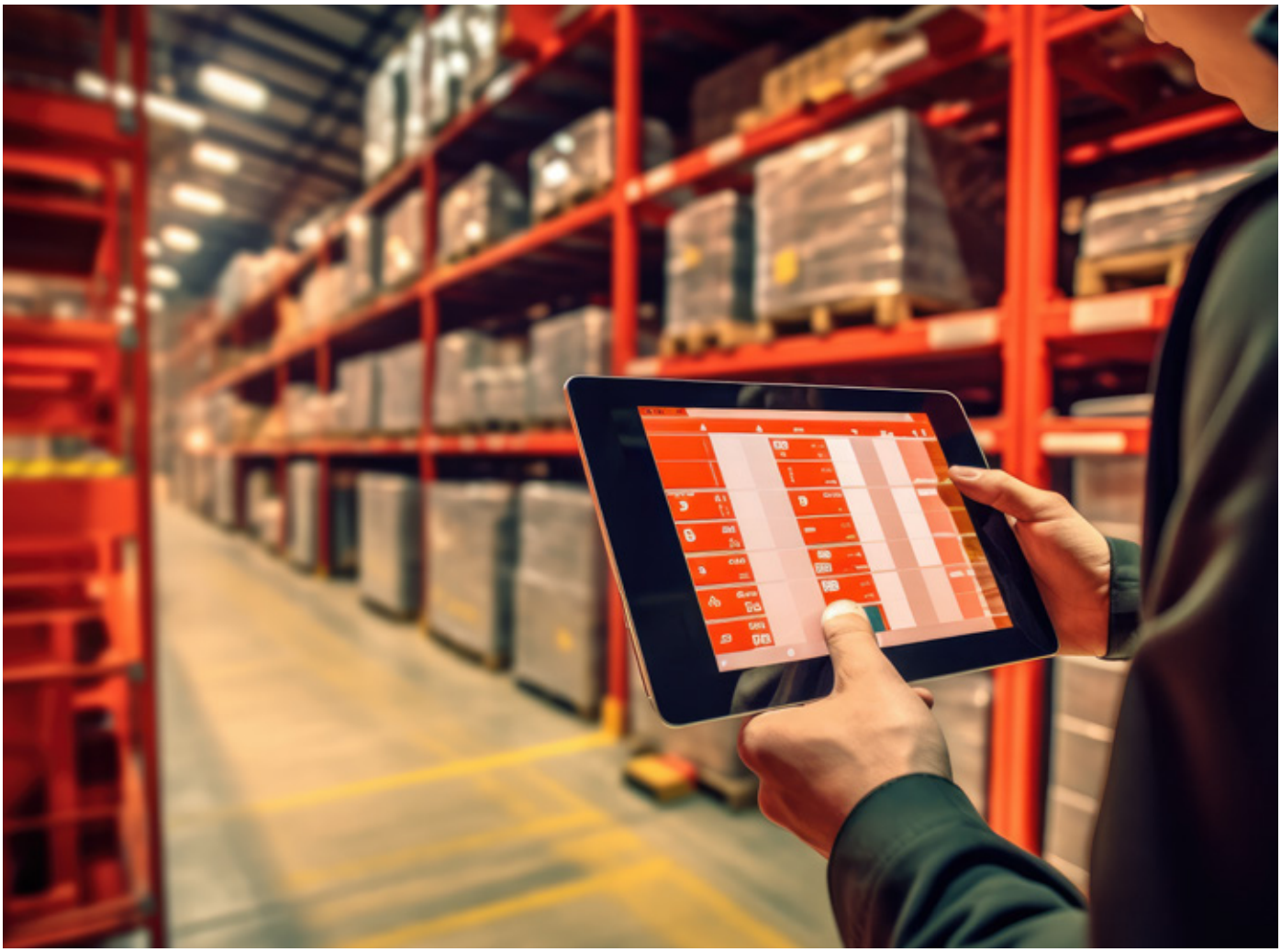
Empowering **warehouses:**

elevating operational excellence and security with Videonetics

Look Deeper

Executive Summary

Enhancing efficiency and security through AI-Powered video analytics solutions



The fast-paced, demanding environment of modern warehouses creates several management challenges. Inefficiencies, operational bottlenecks, and security concerns can all have a negative impact on operations and profitability. Fortunately, technological advancements offer efficient solutions to these issues, with video analytics being one of the most promising.

Videonetics, a prominent provider of video management and analytics solutions, provides a range of technologies designed specifically to meet warehouse operational challenges. Leveraging the power of AI-driven video analytics, Videonetics can boost operational efficiency and security while enabling warehouse managers to optimise their processes.

This solution brochure will explore the challenges of warehouse operations, how video analytics can help with these issues, and how Videonetics' solutions can help revolutionise warehouse management.

Introduction

Navigating through warehouse complexities

Warehouse operations are like complicated puzzles, with everything from managing stock and processing orders to logistics and security tightly interlocked. This complexity can lead to several problems. According to the U.S. Bureau of Labor Statistics, the warehousing and storage industry reported 108,740 nonfatal work-related injuries and illnesses in 2019. The National Insurance Crime Bureau's 2018 report indicates that cargo theft costs U.S. businesses a whopping $30 billion each year. Other reports worldwide offer a similar picture.

Video analytics is a cutting-edge solution that promises to reduce these and additional concerns. Using complex algorithms, video analytics can analyse surveillance footage in real-time, transforming passive security systems into proactive management instruments. They play a significant role in modern warehouse administration, whether it be monitoring the inflow and outflow of goods, detecting unauthorised access, or ensuring compliance with safety regulations.

Video analytics is a multifaceted instrument that can significantly enhance operational efficiency and, consequently, the bottom line. This is where Videonetics enters the picture, offering a suite of sophisticated video analytics solutions for warehouse environments.

Revolutionising warehouse operations with video analytics

Effective warehouse management in the current industrial environment requires the intelligent application of innovative technology. The introduction of video analytics into this environment signifies an important shift toward data-driven, highly responsive operational practises.

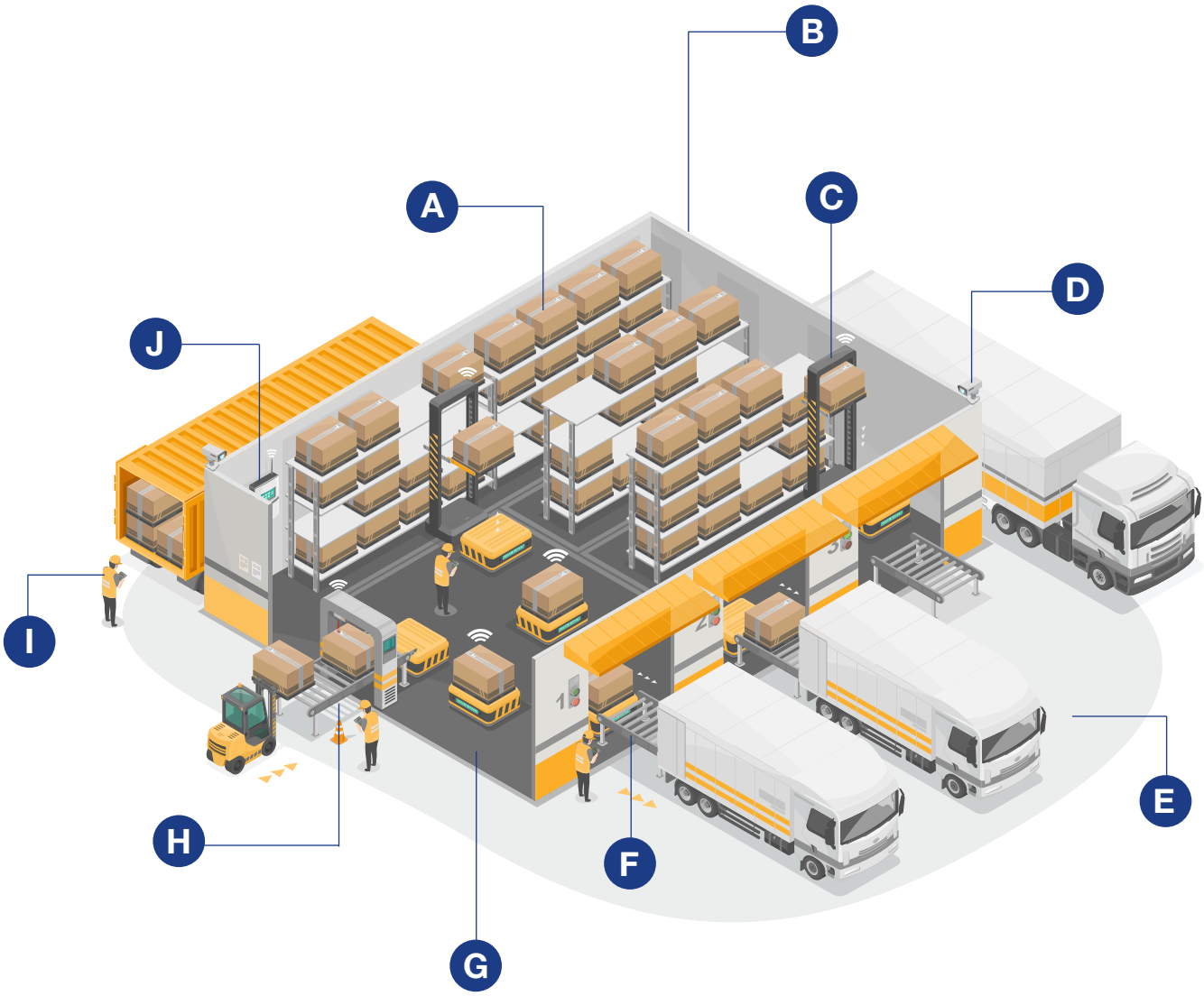
Consider a scenario in which there are operational errors, such as irregularities in material loading and unloading or even material theft within the warehouse. Traditional systems may not discover these issues or illegal activities until they have caused a major interruption in order fulfillment or inventory loss. They have the potential to harm client relationships and have a detrimental influence on the bottom line. However, video analytics can quickly recognise and flag these issues.

This is just one example of the vast benefits that video analytics can offer for logistic operations. Video analytics can revolutionise the warehouse environment in a variety of ways, including enhancing security measures and ensuring strict safety compliance, optimising workforce allocation, and enhancing the accuracy of inventory monitoring.

The essence, however, lies in the selection of a solution that is both comprehensive and adaptable to the specific needs of each warehouse operation - something that Videonetics offers.

Videonetics solution: the future of warehouse management

Videonetics has a keen understanding of the intricate challenges hurting warehouse operations. Our cutting-edge solutions, powered by proprietary deep learning algorithms, are tailor-made for warehouse environments, providing real-time operational insights to aid informed decision-making. Here are some of the key functions that Videonetics solutions offer.



Find the details on the next page.

A Storage aisles monitoring:

Safety in these critical areas is enhanced through forklift/moving machinery and pedestrian detection, pathway obstruction detection, liquid spillage detection, fire and smoke detection, and integration with fire detection systems.

B Perimeter security:

To mitigate theft and unauthorised entry, Videonetics offers a video-based perimeter intrusion detection solution, PTZ-based auto-tracking of intruders, detection of suspicious movements outside the perimeter, and fire and smoke detection near the boundary.

C Hazmat, elevated, utility areas, and control room:

In these specialised zones, safety is ensured through various mechanisms like PPE detection, person slip and fall detection, safety harness detection, zone monitoring, and presence detection of people for monitoring or duration of absence.

D Multi-facility monitoring:

Videonetics' Multi-Site Aggregation allows centralised monitoring of multiple Videonetics VMS installations with real-time alerts from individual warehouses and multi-operator role-based access control for viewing warehouse cameras or selecting locations within single or multiple warehouses, enhancing the overall situational awareness of multiple locations.

E Securing walkways and traffic routes:

Safety is ensured through vehicle speed detection, helmet detection for bike riders, wrong-way driving detection, detection of pedestrian crossing at non-designated locations, reflective safety vest detection, detection of parked vehicles in non-designated spots, stopped vehicle detection, and incident detection (e.g., person collapsed, crowd formation, behaviour, etc.)

F Monitoring loading/unloading docks:

Videonetics addresses safety hazards by detecting pedestrians and forklifts (or machine/conveyor belt) in close vicinity, hazardous forklift movements, person slip/fall detection, pathway obstruction, liquid spillage detection, PPE detection, vehicle bay occupancy detection, vehicle occupancy time, and object detection on conveyor belts.

G Monitoring entry and exit gates:

Videonetics' solutions effectively manage unauthorised vehicle entries by tracking and capturing images of vehicles and drivers, controlling vehicle access, and utilising automatic barriers. The system categorises visitors, monitors dwell time, and identifies individuals, ensuring optimal security at entry and exit gates.

H Forensic support across the site:

For the incident investigation or operations audit, Videonetics offers attribute-based search with video summarisation to quickly filter objects of interest and summarise a large video segment into a small clip.

I Internal monitoring:

To ensure situational awareness and efficient investigation, Videonetics provides intuitive video management and monitoring that includes features such as scene re-creation, snap search, collaborative monitoring, video cart for evidence export, and alerts audit view.

J DC and DR feature for business continuity:

The Data Center - Disaster Recovery (DC-DR) framework in Videonetics' Video Management System guarantees effective management of the massive amounts of data collected in warehouse settings. By enabling secure data transmission, this feature ensures the security and integrity of video data, safeguarding it against potential loss or corruption. The implementation of this dependable solution ensures uninterrupted business operations and strengthens the warehouses' resistance to unforeseen data challenges.

Maximising efficiency through integration

The true potential of Videonetics' technology lies not only in its standalone functionality but also in its 'All-in-One' integration capability. Providing a unified interface, Videonetics connects and monitors all subsystems from a single location, exemplifying the maxim “All for one, one for all”. This enables the operator team to efficiently manage end-to-end operations by consolidating multiple subsystems into a single, unified interface. In effect, Videonetics optimises both system resources and personnel within a warehouse management structure, thereby increasing overall productivity.

Perimeter security solutions and thermal cameras:

Videonetics can partner with perimeter intrusion detection systems (PIDS), radars, guard tour systems, and thermal cameras to classify and track intruders, improving security measures.

Fire detection system:

Associated camera feeds provide instant situational awareness during a fire incident, ensuring a rapid response.

Public announcement and audio systems:

Our integration enables the broadcast of pre-recorded safety guidelines and alerts in case of non-compliance.

Boom barriers:

Videonetics' solutions can control barrier operation through license plate recognition, facilitating efficient vehicle access.

Temperature sensors:

Integration with temperature sensors allows Videonetics to monitor and alert warehouse temperature deviations, helping maintain product quality.

The Videonetics advantage: pioneering transformation

As we navigate the digital transformation era, the right technological partnership is pivotal for any organisation's success. Videonetics stands apart due to its innovative, scalable, and user-friendly video analytics solutions.

Technological superiority:

Videonetics leverages advanced machine learning and AI technologies to deliver real-time insights, precision, and automation. Our innovative approach enables us to deliver ONVIF-compliant, cloud-ready, and OS & hardware-agnostic solutions. These integrated yet modular products are scalable and interoperable, paving the way for superior flexibility and future growth.

Data privacy and compliance:

Videonetics is committed to data privacy and compliance. Our solutions are GDPR-compliant and meet the highest industry standards for security and privacy. We also offer a variety of features to help customers protect their data, such as encryption and secure authentication.

After-sales support:

Videonetics values after-sales support and maintenance. Our clients have round-the-clock access to a dedicated support team and can expect regular system updates.

Value proposition:

Videonetics provides substantial value by reducing manual labor, minimising losses, and enhancing operational efficiency. The long-term advantages of Videonetics' solutions significantly outweigh the initial cost, making them a cost-effective option for warehouses.

Conclusion

Take the lead with Videonetics' solutions

The complex operations and varied difficulties of modern warehouses necessitate solutions that go beyond conventional approaches. Video analytics technology is a significant tool in this regard for improved security and operational efficiency.

With its cutting-edge video analytics solutions, Videonetics provides a comprehensive response to warehouse needs. Videonetics ensures an efficient, safe, and productive warehouse environment by addressing unique difficulties in specific areas of operations. With an unwavering commitment to data protection, strict adherence to industry standards, and meticulous attention to technical specifications, Videonetics delivers efficient operations and peace of mind.

The cost-effectiveness of our solutions, along with the promise of a significant return on investment, strengthens the case for use in warehouses. Videonetics is more than just a video management solution provider - we are a strategic partner committed to the ongoing success and improvement of your warehouse operations.

Ready to stay ahead in this competitive landscape? Reach out for a consultation or demo today.

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We look deeper to simplify the world. Making it *Safer, Smarter and Happier.*

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