

Industry Overview

The efficient management of logistics and shipping operations in airports and logistics centres relies on the smooth coordination of various tasks, including warehouse operations, product & parcel tracking, and workplace safety, all in a dynamic environment.

To achieve these goals, logistics and shipping centres can leverage the power of edge computing, an innovative, yet proven, technology that optimises data processing and provides a safer workplace while respecting workers' privacy and anonymity.

Nuvla.io is SixSq's ecosystem that simplifies the implementation of edge computing for logistics & shipping. It is safe, easy-to-use, application-centric, hardware-agnostic, cloud-neutral and container-native.

Edge Computing in Logistics & Shipping

Real-time tracking and monitoring:

Edge computing improves worker safety through real-time tracking and local data processing.

By strategically deploying edge devices and sensors, data is processed in real-time, speeding up analytics and decision making, thereby improving workplace safety.

Efficient asset tracking for process optimisation:

Edge computing enhances asset tracking by using connected edge devices and camera sensors.

This data interfaces with inventory systems, ensuring an efficient product flow, reducing search time, and minimising supply chain disruptions.

Maintaining privacy and anonymity:

Edge computing ensures data privacy and identity protection by avoiding the transmission of sensitive information to centralised servers or the cloud.

To manage anonymous identities, personal data is replaced by unique tokens, maintaining efficiency while safeguarding worker privacy.

Additionally, limited retention of original data on edge devices allows for event-driven data retrieval. This facilitates forensic analysis for accident investigation, aiding the identification of root causes.

Nuvla.io in Logistics & Shipping

The implementation of edge computing through [Nuvla.io](https://nuvla.io) can help you to:



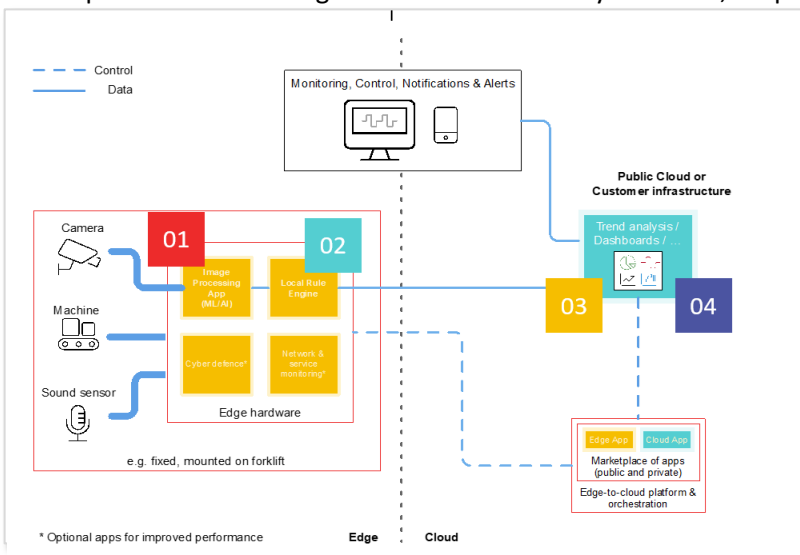
and more...

How can Nuvla.io support Logistics & Shipping

Edge computing practices normally require technical knowledge, training, and specialised personnel able to understand and run a complex, digital ecosystem. [Nuvla.io](https://nuvla.io) takes this complexity away, leaving you to focus on your business.

Nuvla.io provides a diverse suite of applications from domain matter experts in a unique edge-first marketplace to enable your business at the edge. We operate to avoid vendor lock-ins and provide a simple interface and enjoyable user experience which allows anyone to operate otherwise complex edge computing systems.

To deep dive into more tangible elements linked to your needs, we propose a bouquet of apps from our marketplace:



01

Video analysis:

Machine learning model running at the edge, close to high quality video feed.

02

Local rule engine (no code):

Collect local data, calibrate, pre-process + local actions and forward data.

03

Aggregate data (no code):

Collect all locally forwarded data for actionable insights.

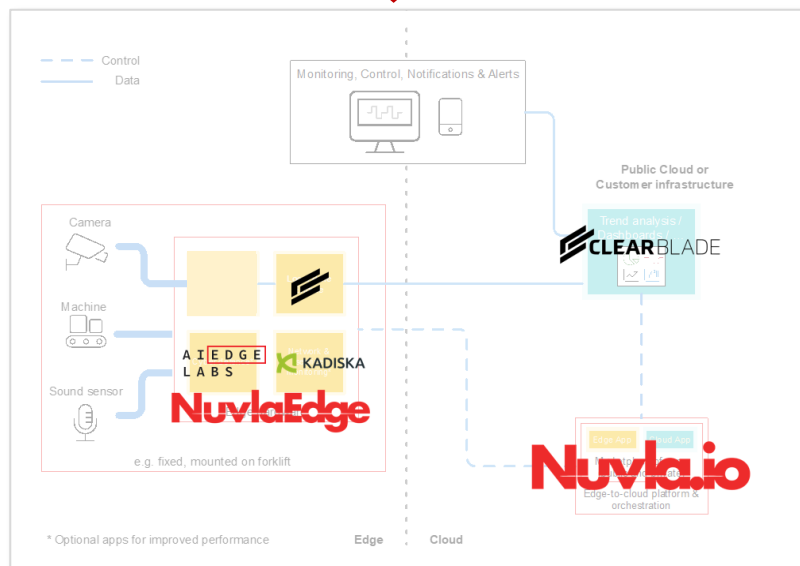
04

Insights, Alerts, Notifications

(low code): Create dashboards, alerts, notifications, reports and interface with other systems.

A Bouquet of Solutions

- ✓ Cutting edge computer vision, analytics, reporting, dashboarding and insights:
You get a modular solution, with no lock-in, taking advantage of an open eco-system.
- ✓ Reuse existing hardware to reduce costs and carbon emissions:
You can deploy on a wide range of existing and new hardware, including cameras and sensors.
- ✓ Acceptable by workers and unions; improves health and safety:
You get a solution designed to be respectful of the privacy sphere of workers and the public.
- ✓ Easily scales on wide range of sites:
You get an open, low network dependent solution, based on standards.



Nuvla.io offers a variety of ready-to-use apps that serve your specific needs. Here is an example which can deliver results for your business, which includes ClearBlade, Kadiska and AI Edge Labs.

You have the total freedom to match other apps, create your own, or upload your desired applications to the Nuvla.io ecosystem. This allows extreme flexibility to enable you to reach your logistics goals.

Unleash the power of Edge Computing with Nuvla.io