

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 can help you to:



Protect
Protect workers in warehouses




Track
Track products and trolleys



Count
Identify & count moving and stationary assets



Locate
Identify coordinates of assets




Identify
Detect unique assets using OCR labels



Journey
Track assets even when label/ID is not visible



Everywhere
Indoor - Outdoor
Day - Night



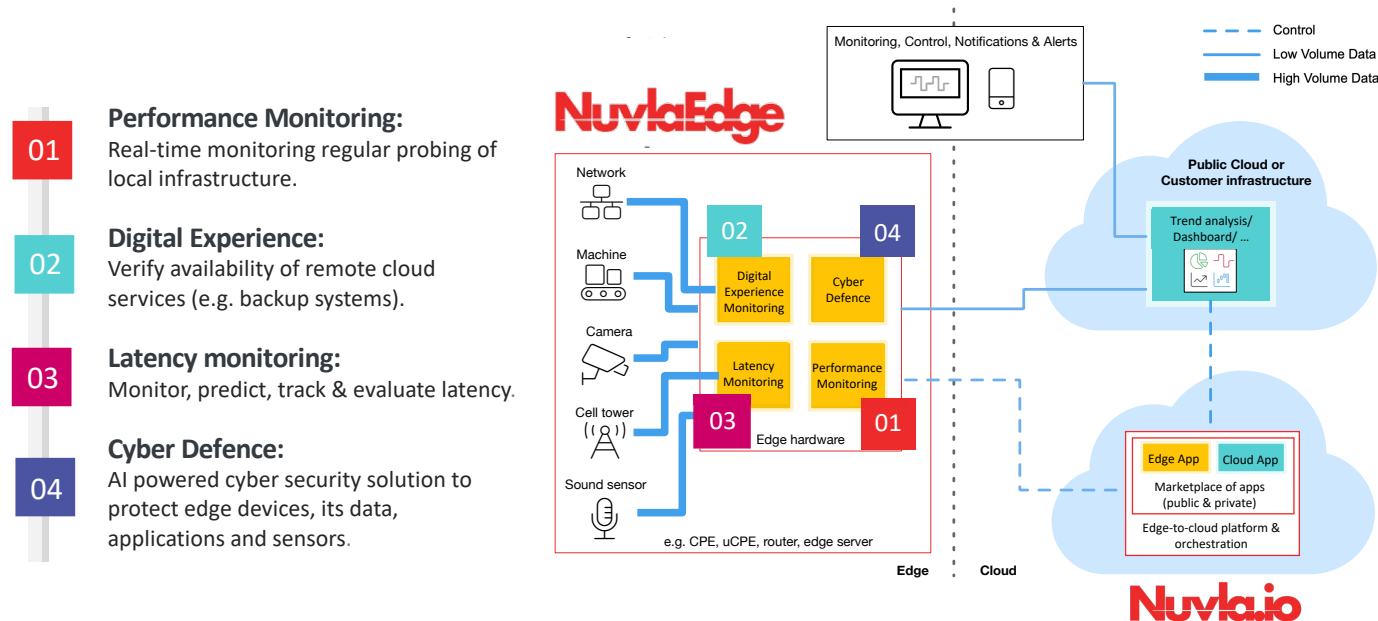
Clarity
Distinguish loaded vs. unloaded assets

and more...

How can Nuvla.io support Logistics and Shipping

Edge computing practices normally require technical knowledge, training, and specialised personnel able to understand and run a complex, digital ecosystem. Nuvla.io takes this complexity away, keeping you focused on your business.

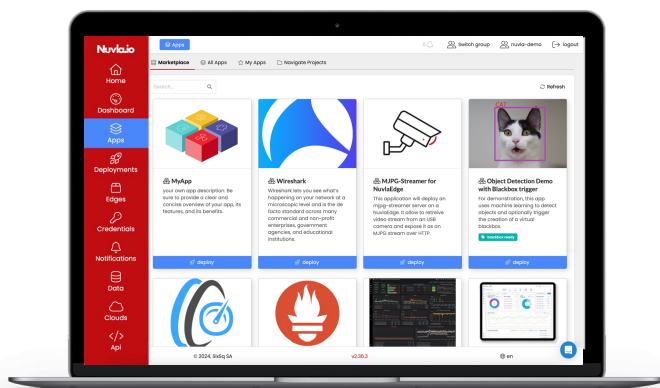
Nuvla.io provides a diversified suite of applications in a unique edge-first marketplace to enable your business at the edge. We operate to avoid vendor lock-ins and provide a simple interface and enjoyable user experience which allows anyone to operate otherwise complex edge computing systems.



NuvlaEdge is SixSq's software that enables hardware to become smart edge devices, securely and remotely managed from Nuvla.io. NuvlaEdge runs on most Linux-based operating systems with support for Docker and Kubernetes.

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 yet improving 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 existing ready-to-use apps that serve your specific needs. To learn more, visit our [catalogue](#).

You have total freedom to combine other apps, create your own, or register applications of your choice to the Nuvla.io ecosystem. This gives you huge flexibility to enable you to reach your logistics and shipping goals.

Unleash the power of Edge Computing with **Nuvla.io**