

Container Management Solution



Container Transportation Background

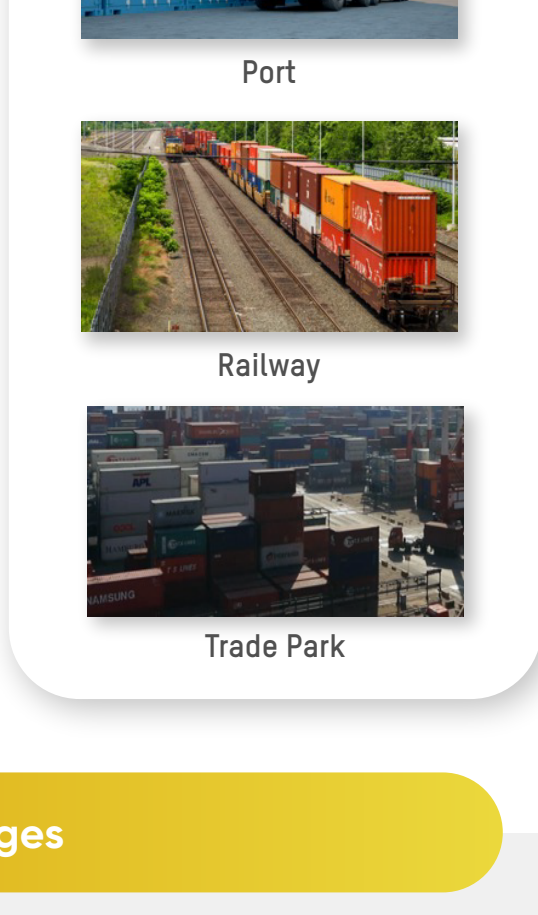
Container transportation is widely used for long-distance logistics throughout the world.

Benefits

- Replace manpower with mechanical equipment
- Reduce loading and unloading operations, shorten loading and unloading time
- Ensure that the goods are in good condition
- High endurance and compact storage

Market trend of container transportation

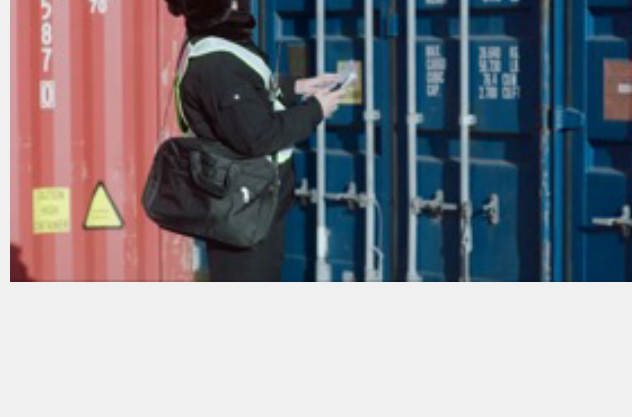
- Growing size of container transportations in logistics chain will cause congestions and conflicts inevitably
- Increasing demand by couriers due to trade internationalisation.
- Growing investments in new technologies by shipping companies to maintain a steady customer relationship.



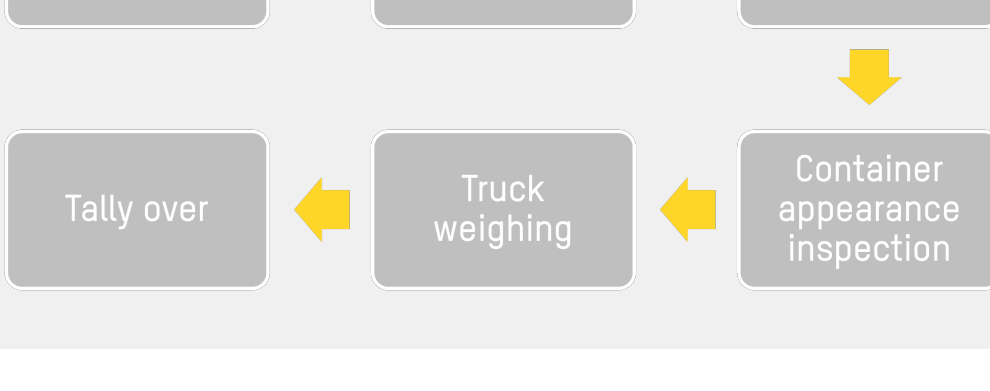
Major Challenges

Manual verification leads to low efficiency

- Manual sealing of container number and lead seal is inefficient, causing congested traffic for lorries.
- Paper records of Container number can lead to easy mistakes, and hard to be digitally archived.
- Poor working environment for tallymen, and potential safety risks in busy traffic.



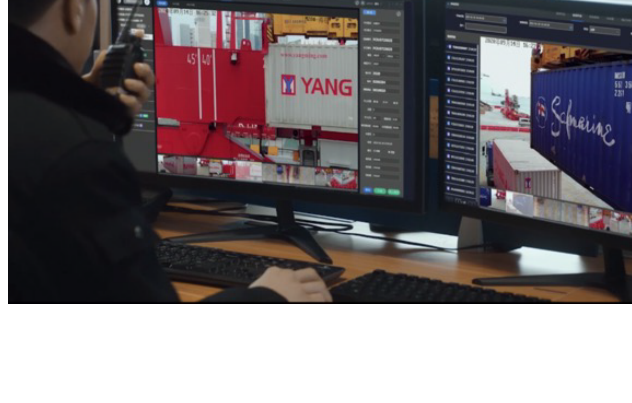
The Traditional Inspection SOP



Hikvision Container Management Solution Overview

Intelligent Container Management System

- Images of all sides captured by multiple cameras to quickly check the container and confirm the condition
- CNR cameras recognize container numbers and upload to terminal helping reduce mistakes and improving retrieval efficiency.
- Electronic information recording keeps employees away from traffic flow and provides a safer working environment.

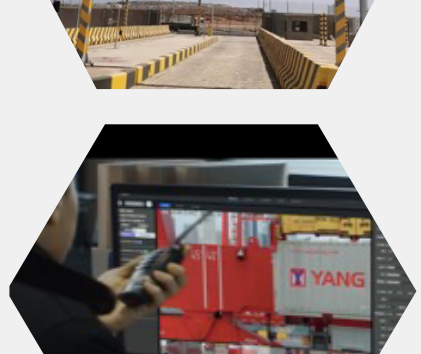


- Appearance inspection
- Container No. records
- Plate No. records

Solution Highlights

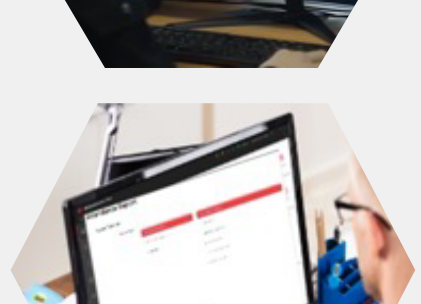
AI-Based CNR System

Automatic recognition of container number
Approx. 98% recognition accuracy rate
Video-triggered recognition simplifies front-end response



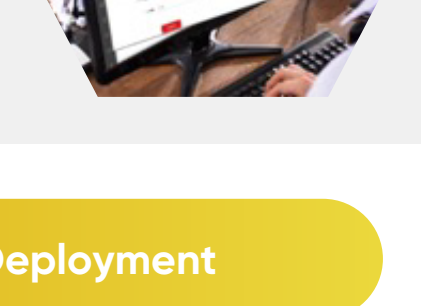
Remote View and Scheduling

AI-Based CNR System
Video and image captures for post-event verification.
Improved traffic efficiency
Remote container monitoring in real time
Inspect from all-angles



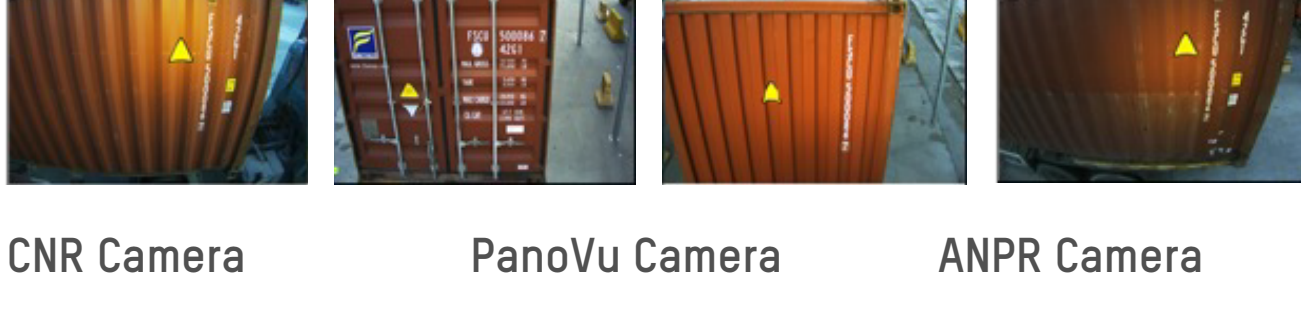
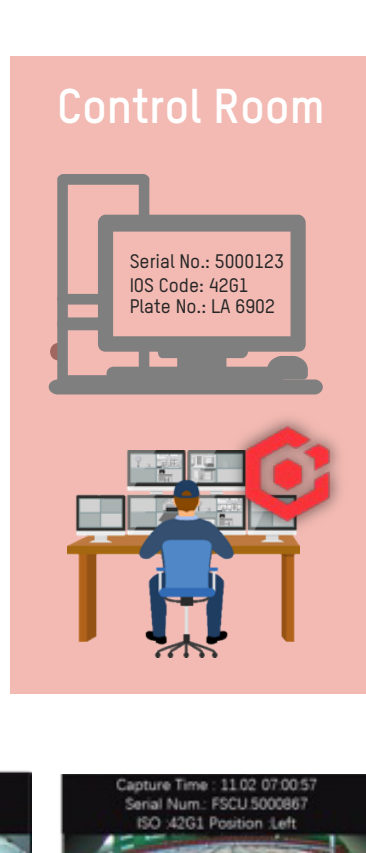
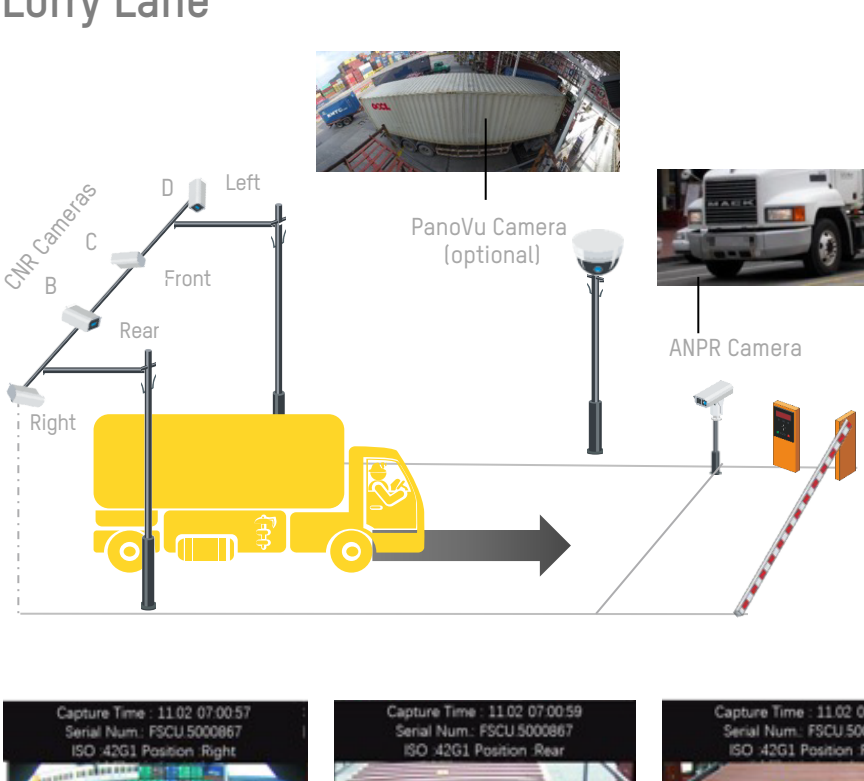
Rich Data for Operational Efficiency

Support multiple data type identification: container number, ISO code, check digit, license plate number
Support 3rd party integration
Friendly UI design



Application Workflow & Solution Deployment

Lorry Lane



CNR Camera

Ensure over 98% recognition accuracy.
Identify all standard container sizes
Record data with moving truck (less than 30 km/h)

PanoVu Camera

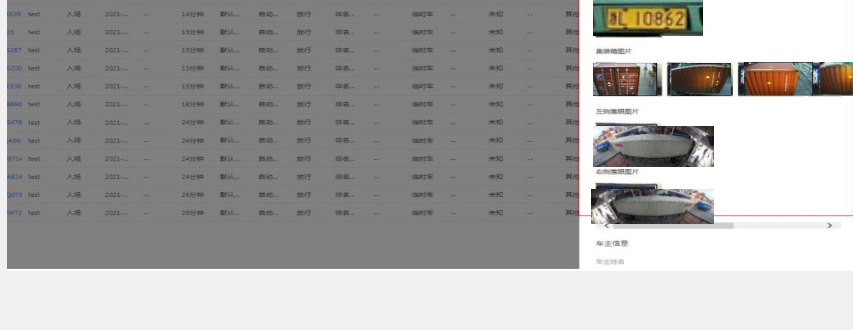
Takes photos of all sides for quick checking of container appearance.
*PanoVu can be installed on gantry based on project needs.

ANPR Camera

License plate recognition.
Entrance and exit barrier control.

HikCentral All-in-one Management

An interface shows the complete information of container transportation



Vehicle Picture

Captured by ANPR camera at the front of vehicle.

Container / Vehicle Number Captures

Captured by ANPR camera and CNR cameras which recognize the plate and container numbers.

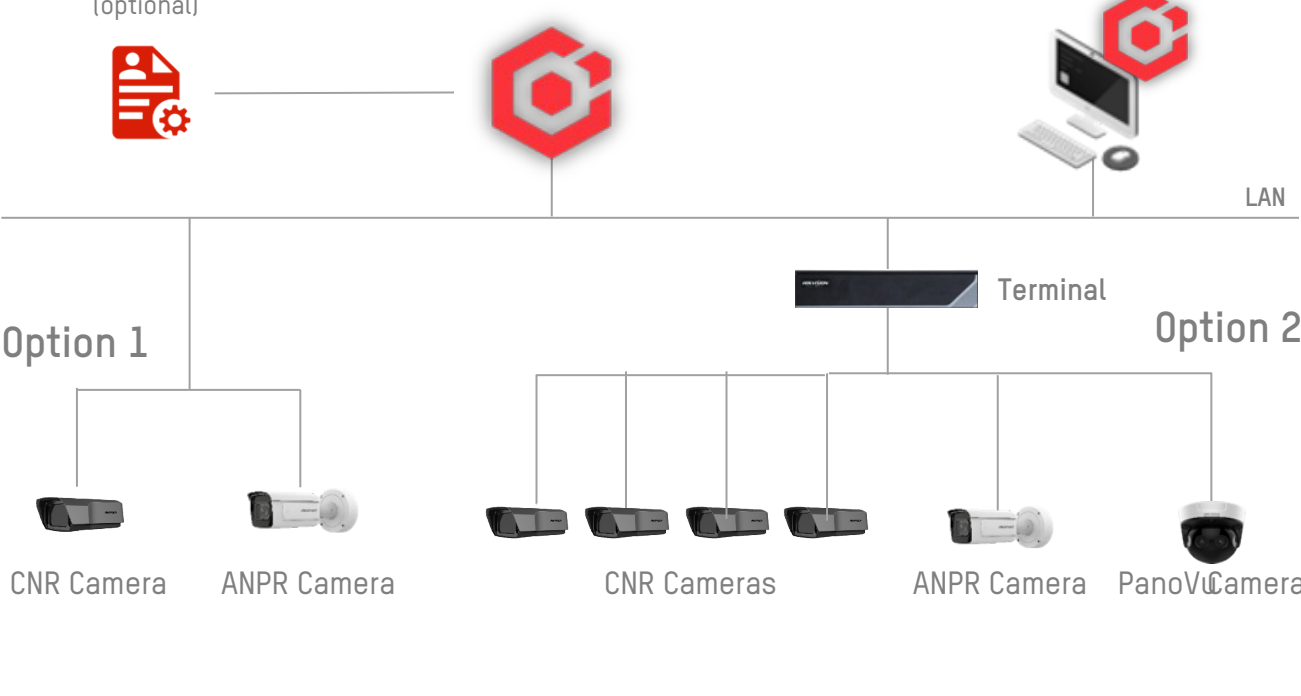
Container Information

Including container serial code, ISO code, Owner Prefix, vehicle entry and exit time, vehicle plate number and so on.

Container Pictures

Captured by panoramic camera which can be used to confirm whether the appearance of the container is damaged.

System Topology



Product Showcase



- WDR 140 db
- H.265 algorithm
- Container number and ISO number Recognition
- 180° splicing image
- High resolution 32 MP
- DarkFighter technology
- License plate recognition
- Entrance and exit barrier control
- Access of multiple cameras
- Fusion of multiple data types
- Centralised data management
- All-in-one historical records
- 3rd party integration