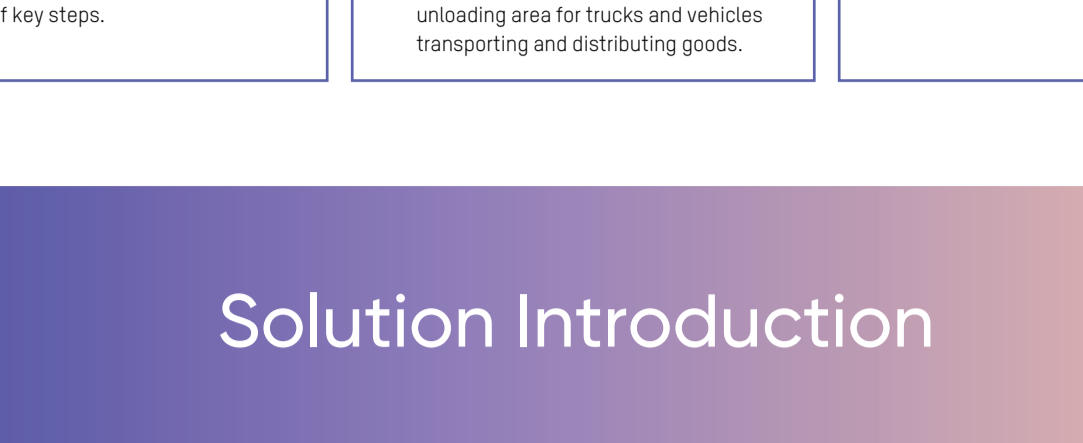


# Dock Management Solution



## Requirement Analysis



- What is LOGISTICS?**
  - Logistics is the flow of goods, the complete process of delivering goods quickly and on time from the production location to the consumer, following a series of key steps.
- What is a DOCK?**
  - Among the core functions of storage and cargo handling is **loading and unloading** at a fulfillment center or distribution centre. The dock is the loading and unloading area for trucks and vehicles transporting and distributing goods.
- End Users are?**
  - **Security Department** for loss prevention.
  - **Operations Department** for better efficiency.

## Solution Introduction

## Solution Architecture

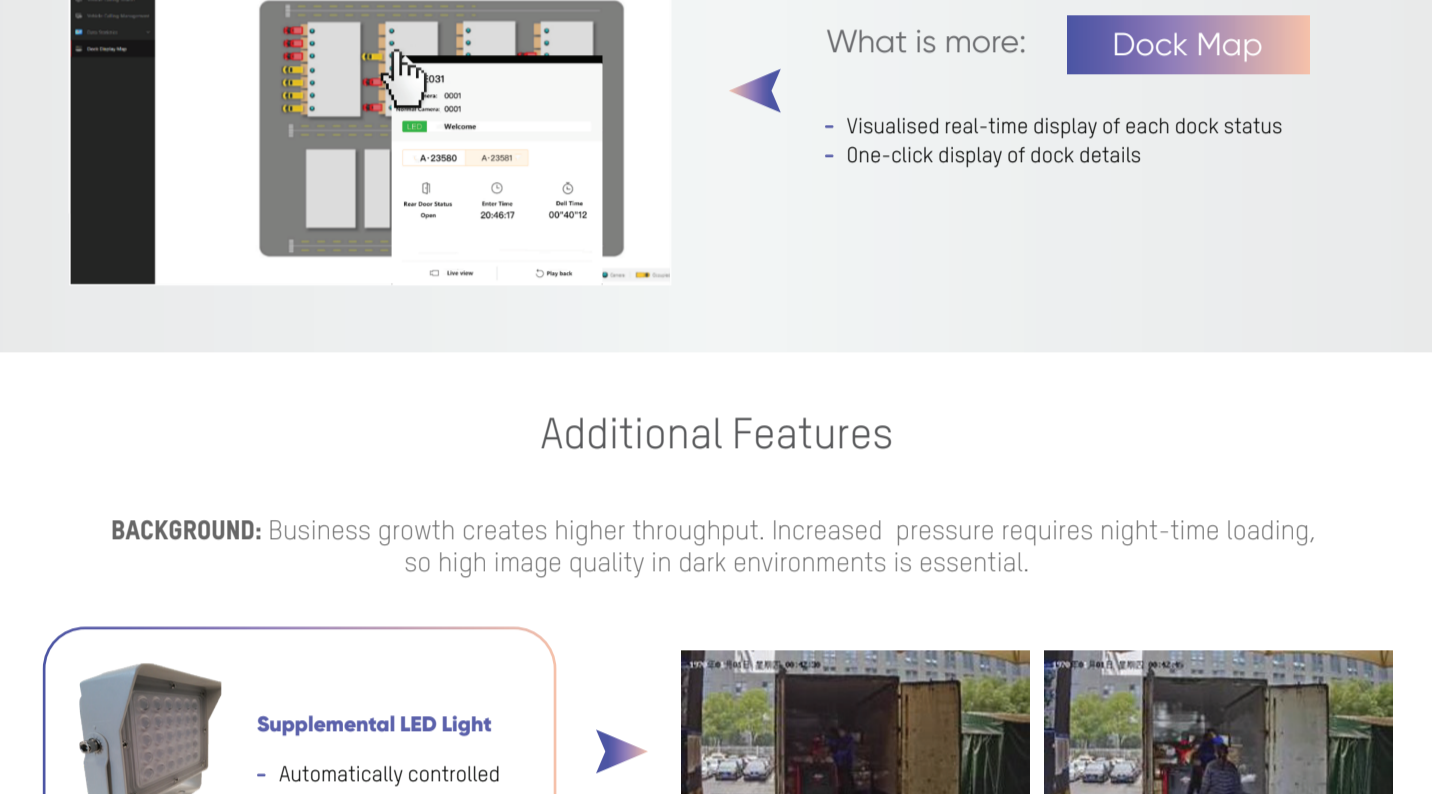
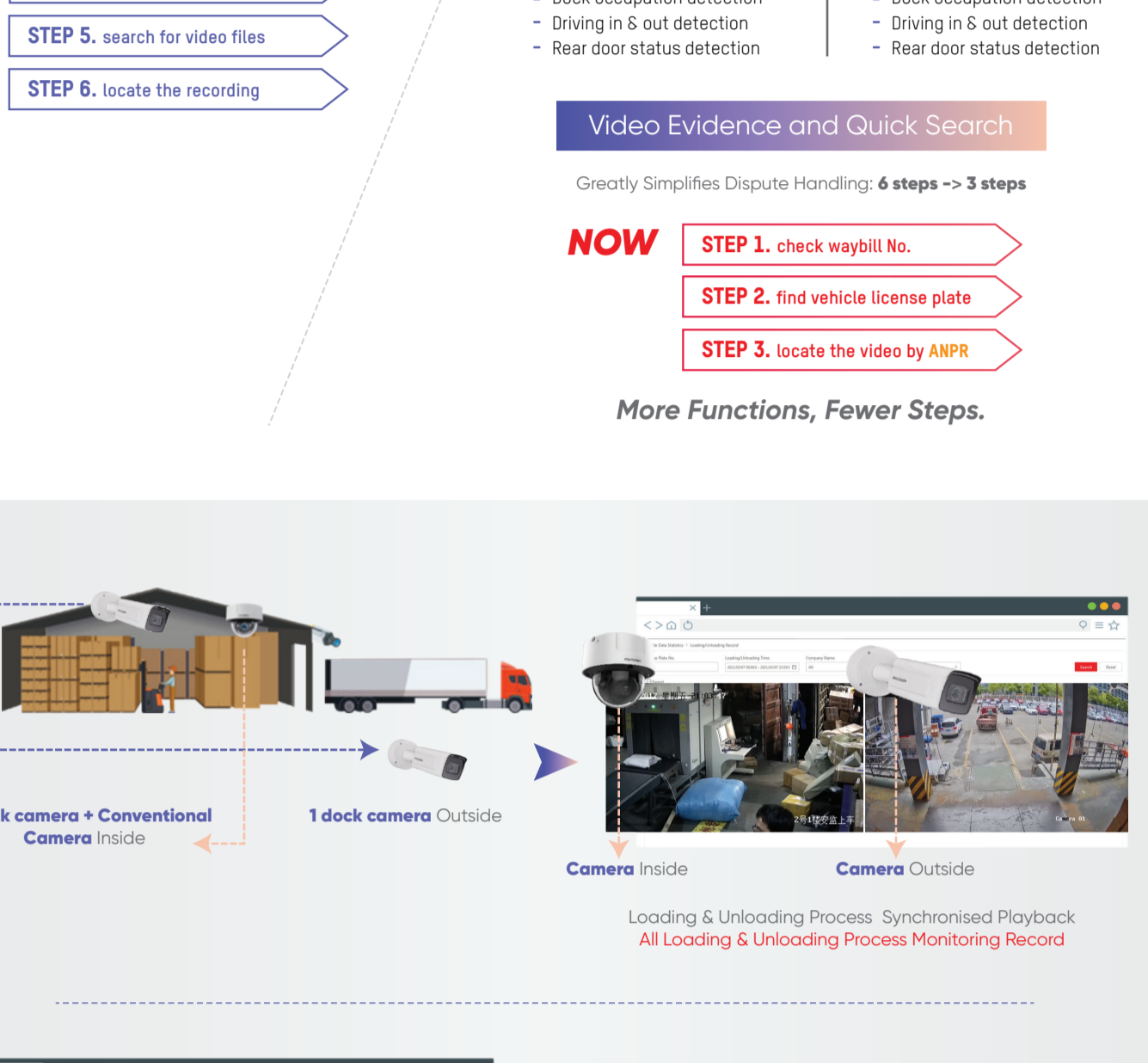


- Dock Camera**
  - ANPR
  - Dock occupation detection
  - Driving in & out detection
  - Rear door status detection
  - Automatic LED light control
- LED Display**
  - DS-TVL224-4-5Y(2 rows)
- LED Light**
  - DS-DFL5130-0W-485

## Loading & Unloading Management

Hikvision Dock Management Solution – Minimum System

**BEFORE** vs **AFTER**



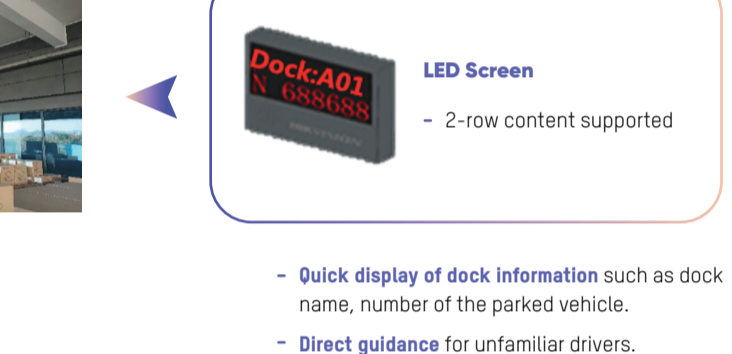
## Additional Features

**BACKGROUND:** Business growth creates higher throughput. Increased pressure requires night-time loading, so high image quality in dark environments is essential.

**Supplemental LED Light**

- Automatically controlled by the dock camera

- See the trailer and cargo clearly even in poor lighting conditions.
- Save power by only activating the light when the dock camera detects the dock is occupied.

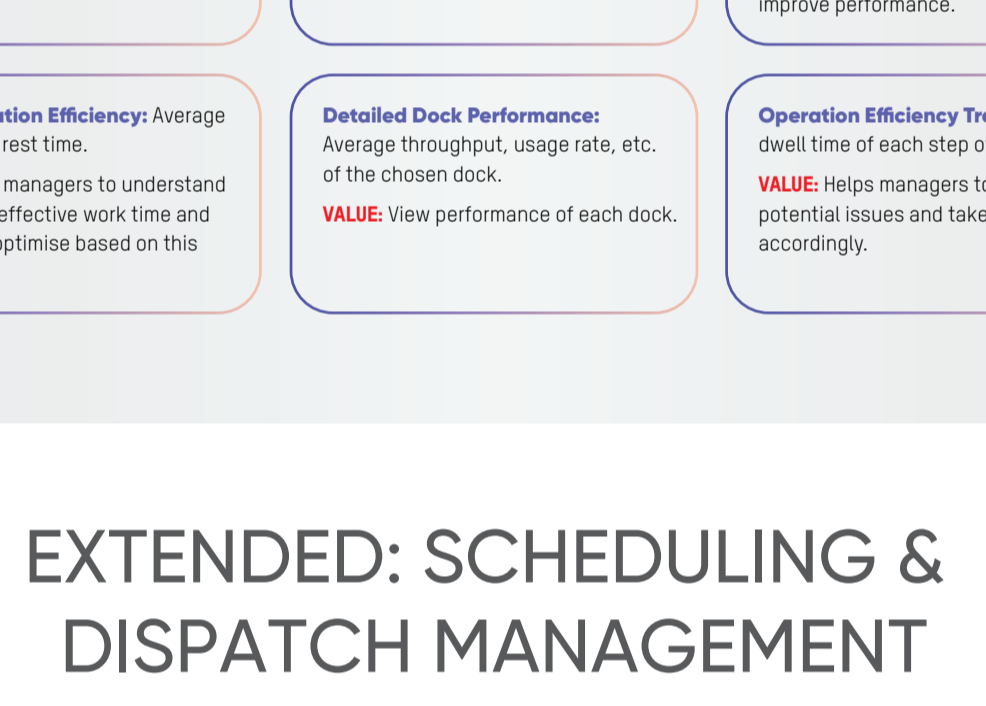


**BACKGROUND:** Even when there are a large number of docks, allows a driver to easily locate the correct one.

**LED Display Installed**

- Quick display of dock information such as dock name, number of the parked vehicle.
- Direct guidance for unfamiliar drivers.

## Statistical Overview of an Entire Logistics Park



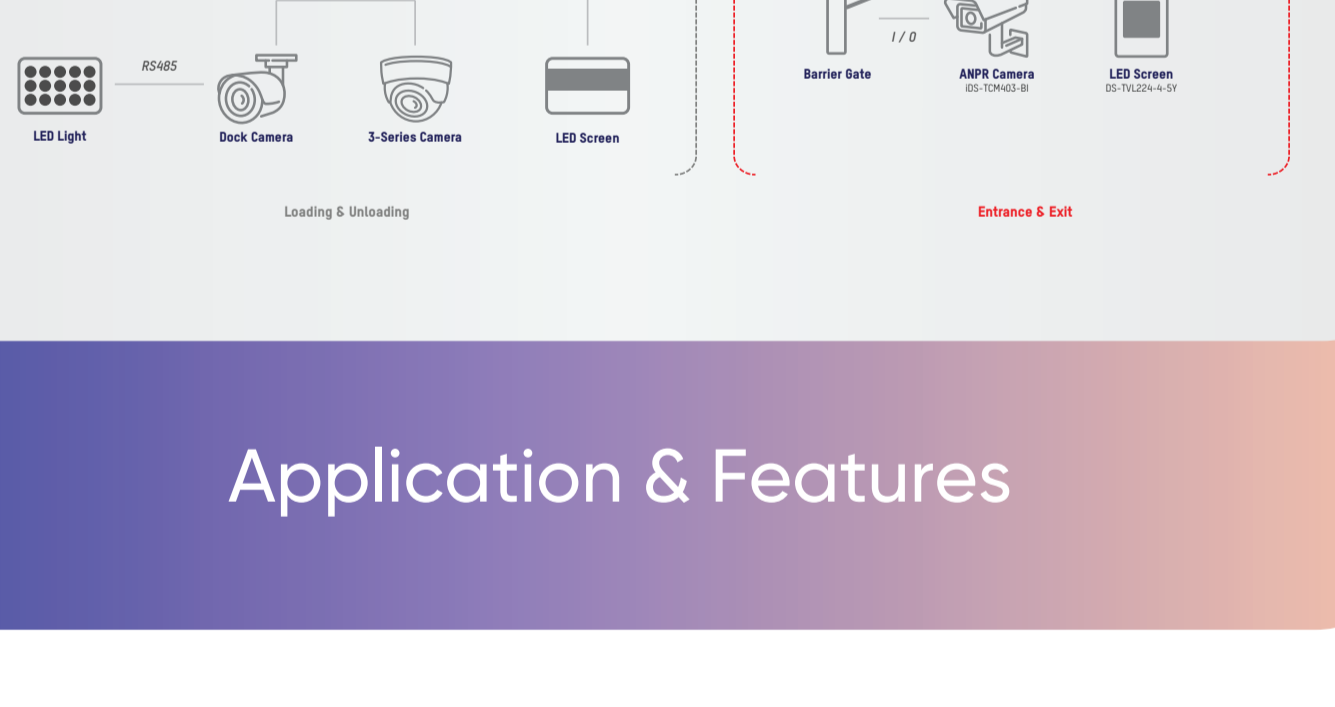
- Real-Time Overall Dock & Truck Status:** Total, Occupied, Available, Waiting etc. **VALUE:** Manage workload and organise manpower effectively.
- Company Throughput Ranking:** Growth rate of each company. **VALUE:** Provide information on each company's performance and help them improve when needed.
- Company Throughput Ranking:** Historical average of work, wait and rest times during loading & unloading. **VALUE:** Highlights truly effective working time and helps managers improve performance.
- Dock Operation Efficiency:** Average work, wait & rest time. **VALUE:** Helps managers to understand wasted or ineffective work time and helps them optimise based on this data.
- Detailed Dock Performance:** Average throughput, usage rate, etc. of the chosen dock. **VALUE:** View performance of each dock.
- Operation Efficiency Trend:** Average dwell time of each step over time. **VALUE:** Helps managers to spot potential issues and take action accordingly.

## EXTENDED: SCHEDULING & DISPATCH MANAGEMENT

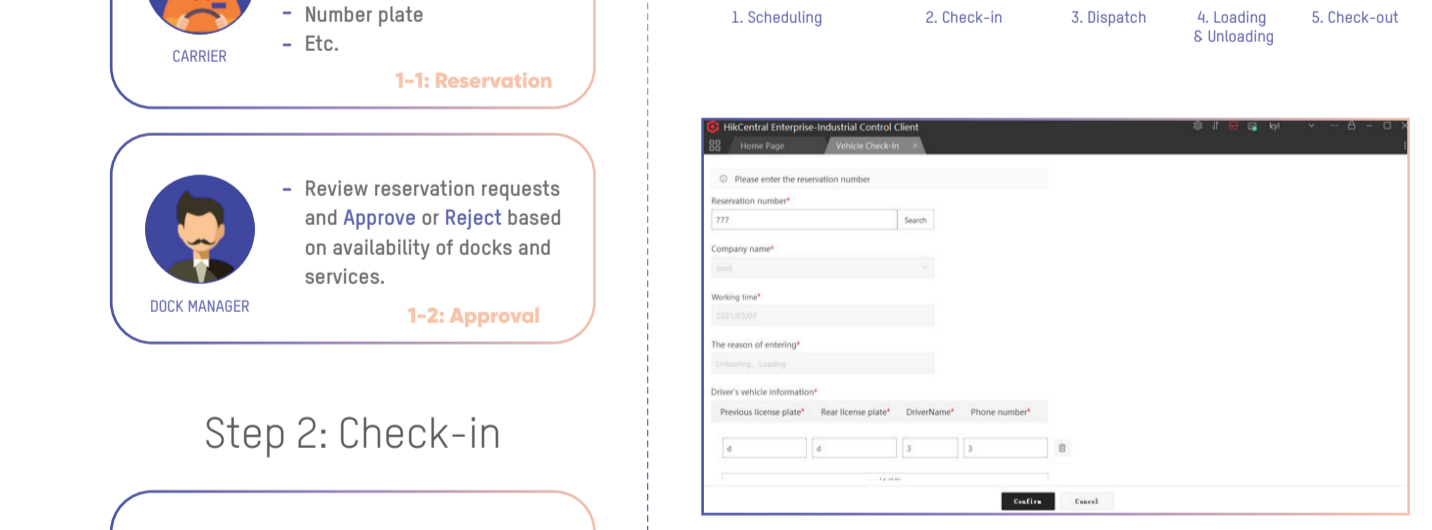
Hikvision Dock Management Solution – Complete Solution Capability

Based on each project and customer request, we also offer an **end-to-end solution** for the complete business flow, including steps which both precede and follow loading and unloading:

1. Scheduling
2. Check-in
3. Dispatch
4. Loading & Unloading
5. Check-out



## System Topology



## Application & Features

### Step 1: Scheduling

**Make reservation for desired entry time:**

- Company info
- Order info
- Driver info
- Number plate
- Etc.

**1-1: Reservation**

- Review reservation requests and Approve or Reject based on availability of docks and services.

**1-2: Approval**

### Step 2: Check-in

- Arrives at the facility and is checked in according to the reservation that was made and approved.

**1-3: Check-in**

**Reservation Approved**

E&E operator confirms and checks the Driver in

### Step 3: Dispatch

- Carrier drivers park at the yard and wait to be called.

**3-1: Waiting**

- The vehicle waiting list can be projected to an outdoor video wall for drivers to view.

**3-2: Calling**

**With Reservation**

- A calling order is automatically formed based on reservations and arrivals.
- The dock team may manually adjust on the web client or mobile app if needed.

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- A calling order is automatically formed based on reservations and arrivals.
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### Step 4: Loading & Unloading

- Issue exit permission

**5-1: Clearance**

- Leave the facility

**5-2: Exit**

## Product Showcase

- Dock camera**
  - IDS-2CD7A4660/P-IZH5(Y)
  - ANPR
  - Dock occupation detection
  - Driving in & out detection
  - Rear door status detection
  - Automatic LED light control
- LED Display**
  - DS-TVL224-4-5Y(2 rows)
- LED Light**
  - DS-DFL5130-0W-485
- LED Display**
  - DS-TVL224-4-5Y
- ANPR Camera**
  - IDS-TCM403-BI

**Dock Management Software**  
HikCentral Enterprise-Industrial

- Adding map, company, information release screen and configure basic information
- Dock map, vehicles data statistics, vehicle search
- Vehicle scheduling and dock management, including:
  - Reserving for vehicles and reviewing reservations
  - Vehicle calling and calling management
  - Searching calling records
  - Granting permissions to one or multiple vehicles to allow them to exit the campus
- Displaying vehicle waiting information of different companies on the display screen

