INTEGRATED SECURITY SOLUTION FOR HARBOR

Face recognition Passenger flow management Emergency Alarm

HARBOR THREATS AND REQUIREMENTS

Environmental Challenges of Harbor Surveillance

24/7 Operations
Systems need to be operational all day, every day.

Poor Operating Conditions
Close proximity to sea-water can cause devices to become dusty and rust easily.

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Challenges

Hazardous Goods
Protect radioactive, chemical, biologic, and explosive materials stored in the yard.

Trespassing Prevention
It is essential that unauthorized personnel may not enter Harbor areas.

Rough Weather
Bad weather conditions can cause heavy damage to Harbor devices and systems.

Common Harbor Surveillance Management Requirements

Container Management

Container No. Recognition
- OCR technology recognizes container numbers, avoiding human error and interference
- It facilitates and enhances harbor management efficiency at the gate.

Vehicle Management

License Plate Recognition
- All-in-one camera captures and recognizes the license plate of vehicles accessing harbor (country-specific)
- Drivers can communicate with command center through video intercom in emergencies or to verify identity

Personnel Management

Face Recognition & Access Control
- Face Recognition at the gate records a subject's facial characteristics, entrance time, and place of entrance
- The system will generate an alarm if recognized face is on the blacklist

HARBOR LAYOUT

Perimeter
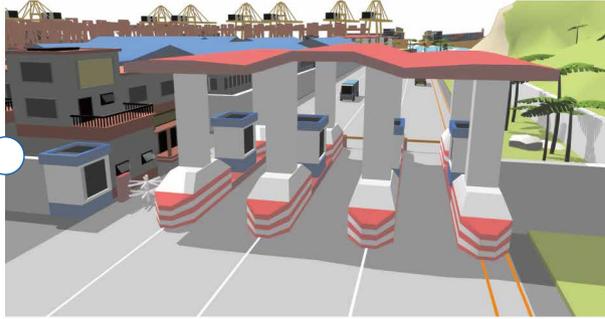- Monitor the Harbor perimeter
- Thermal detection

Berth
- Monitor berth operations
- Anti-corrosion

Shipping Lane
- Monitor ships in shipping lanes
- Thermal detection, long-range zoom, panoramic mode

Gate
- Monitor vehicles and personnel at the gate
- License Plate Recognition
- Container No. Recognition
- Face Recognition

Warehouse
- Monitor warehouse cargo and operations in warehouse
- Starlight and low illumination technology
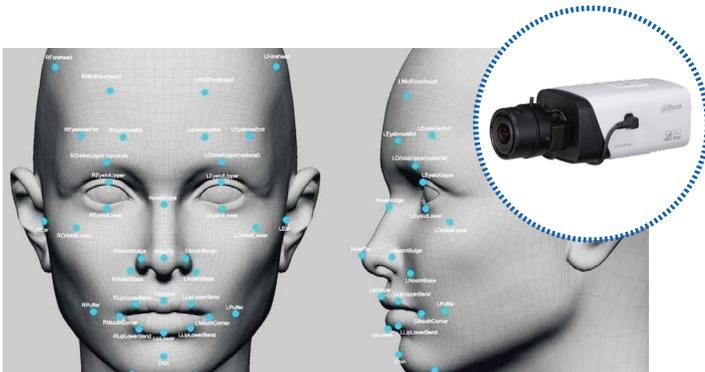- Intelligent analysis of warehouse stock and movement

Yard
- Monitor yard operations in detail with 4K HD
- Explosion-proof design
- Anti-corrosion design

BUSINESS UNIT

Gate

- Uses image recognition algorithms to automatically recognize the license plate number
- Capture and recognize container numbers
- Container damage inspection

Face recognition
- Recognizes distinct facial characteristics with intelligent algorithms
- Set blacklist entries and alarms for certain facial characteristics and information (such as name, gender, date of birth, ID number, etc.)
- Track when and where a suspect appeared at a crime scene
- Generate an alarm when a blacklisted face is recognized and help police catch criminals

Shipping Lane

- Multi-lens camera with 180 degree panoramic video displays wide-angle video in real-time
- Harbor shipping lane can be viewed more clearly
- Effectively improve the performance of emergency response command
- Thermal camera can work around-the-clock and in all weather conditions

Berth

- PTZ with corrosion-resistant shell reliably monitors the handling of cargo

Yard

- PTZ camera with explosion-proof technology monitors the yard in real time
- Record container operation and provide images and video as evidence
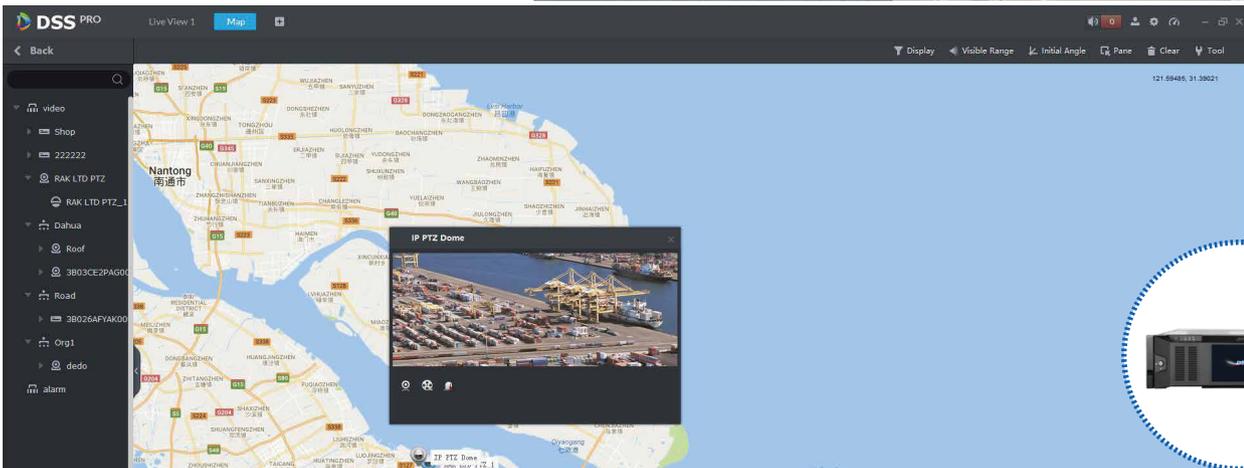
Perimeter

- Configure intelligent intrusion analysis system to automatically detect trespassers and foreign objects
- Alarm is linked to video surveillance and pops up on VMS client
- System displays intruding object and trajectory on video image
- Thermal camera can work around-the-clock and in all weather conditions

Warehouse

- Configure cameras to monitor warehouse operations 24/7
- Cameras equipped with Starlight can record color images in dark environments with brightness as low as 0.006 Lux
- Thermal camera can detect abnormal heat sources to prevent fires
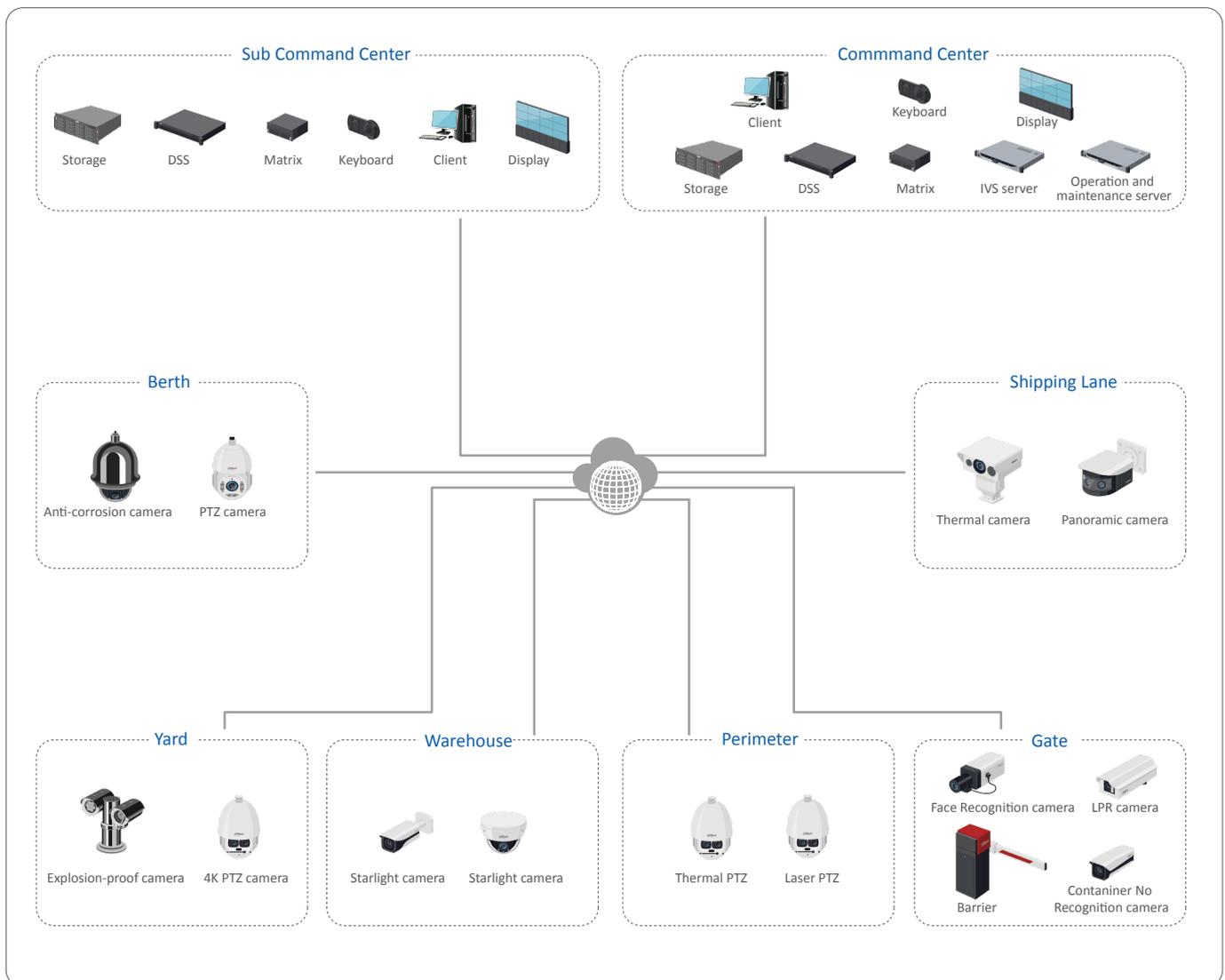
Control Center

- Display map with satellite cloud images, hydrology and meteorology, weather, wave, tidal, and other image information and port operation information
- Manage all devices including viewing real-time video feed and playback
- Intelligent operation and management system allows centralized management of video surveillance, storage, display, and alarm systems
- Video synopsis displays summary of useful information for records sorted by subject and time

SYSTEM STRUCTURE AND OVERVIEW

System Overview

Highlights:

- Unified management: Centralized management of vehicles, containers, and personnel
- High definition: 4K
- Adaptive camera: Anti- corrosion, explosion-proof, panorama, thermal camera
- High integration: All-in-one, M series for display
- Intelligent functions: License Plate Recognition, Face Recognition, Container Number Recognition, perimeter intrusion alarm, intelligent behavior analysis, etc.
- Easy to upgrade: HDCVI technology is cost-effective and easy to install
- High storage reliability: Local SD card storage, RAID technology, N+M solution, and hot spare
- High system efficiency: E-map, self-diagnosis

• 4K Resolution: Provides 4 times the details of 1080p in the same scenario

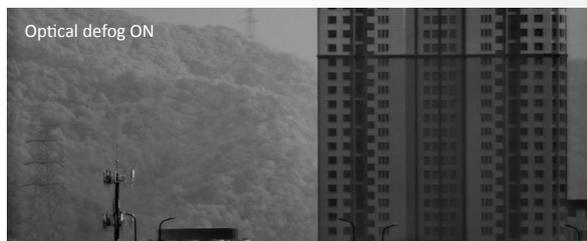4K Ultra HD Resolution (3840x2160P)

HD Resolution (1920x1080P)

• Panorama Mode: One camera with a 180 degree field of view seamlessly covers shipping lanes like never before

• Optical Defog: Advanced optical defog with IR filter can remove 98% of fog, allowing you to see clearly

Optical defog OFF

Optical defog ON

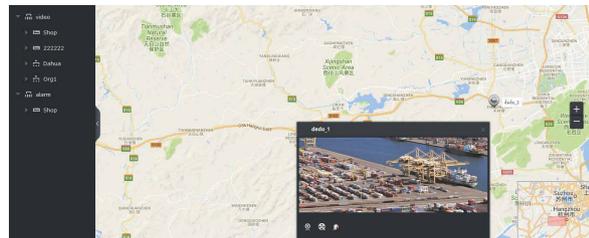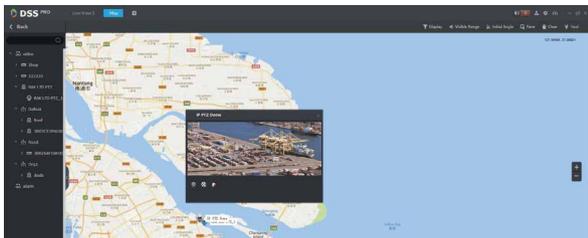• Thermal Detection: Better night effect and contrast effect for shipping line cargo area and perimeter

• License Plate Recognition: Recognize and record license plates and unauthorized actions. Blacklist alarm notifies command center if blacklisted plate is detected
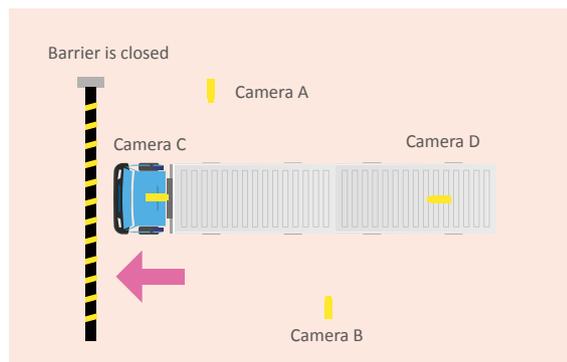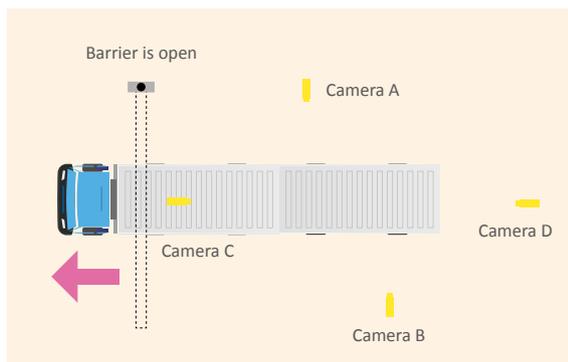

• Face Recognition: Face recording, blacklist alarm, and facial searches make it easy to keep track of personnel

• E-Map Display: Smart tools provide an easy to use and intuitive visual experience

• Container Recognition: Recognize and record container numbers automatically and easily manage container data

• HDCVI: High definition, low latency image paired with high scalability presents cost-effective system

Easy upgrade for existing analog system

| Analog | Analog camera — Coaxial-cable → DVR | Maximum D1 |
| HD-CVI | HDCVI camera — Coaxial-cable → HCVR | Up to 4K |

Low latency for surveillance

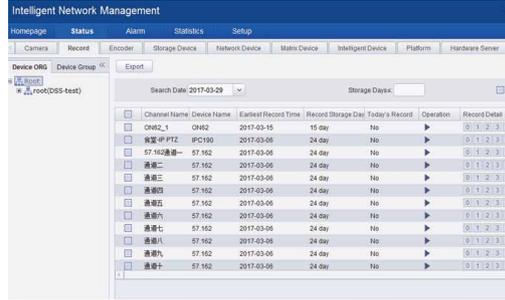| IP system | IP camera — Network → NVR — HDMI → monitor | At least 200ms |
| HD-CVI | HDCVI camera — Coaxial-cable → HCVR — HDMI → monitor | Long transmission and no latency |

• Intelligent Operation and Maintenance: Find malfunctioning devices instantly

Video quality diagnosis

Device
information diagnosis

Storage status diagnosis

PRODUCT SHOWCASE

VTO2000A

- 1/3" 1.3Mp CMOS,2.8mm lens
- Audio compression: G.711,Audio Input: omnidirectional mic
- Audio output : built-in speaker, keypad: single mechanical button
- Ethernet: 10M/100Mbps self-adaptive
- Ingress protection: IP54, IK07

DHI-ITC302-RU1A

- All-in-One camera
- High performance CCD image sensor, high color reduction degree
- Embedded design, built-in a variety of algorithms
- Built-in thunder-proof module to prevent being struck by lightning
- Temperature-40°C~+80°C, humidity 10%~90%, suitable for harsh environments

DH-IPC-HF8231F

- 1/2.8" 2Mp STARVIS™ CMOS
- H.265&H.264 triple-stream encoding
- 50/60fps@1080P
- WDR(140dB), auto back focus(ABF)
- Micro SD memory, PoE

DH-IPC-PFW8601-A180

- Three 1/2.8" 2Mp STARVIS™ CMOS
- H.265/H.264 triple streams supported
- Max 25/30fps@4096x832
- Support 180-degree panoramic view
- IP67, IK10, PoE+

TPC-ACPT8620C-B

- 640x512 VOx uncooled thermal sensor technology
- Athermalized Lens(thermal), autofocus
- 1/1.9" 2Mp progressive scan Sony CMOS
- Powerful optical zoom lens(Thermal&Visible)
- Laser range finder or laser illuminator optional
- Supports fire detection & alarm
- Anti-corrosion/NEMA 4X, IP66

DH-SD6AE240V-HNI

- 1/2.8" 2Mp STARVIS™ CMOS
- Powerful 40x optical zoom
- H.265 Encoding
- Max. 50/60fps@1080P
- Hi-PoE, IP67, IK10

PRODUCT SHOWCASE

DH-SD60230U-HNI-SL

- 1/2.8" 2Mp STARVIS™ CMOS
- Powerful 30x optical zoom ,Starlight
- Max. 50/60fps@1080P, H.265
- PoE+, IP68, IK10, NEMA 4X report
- Material: 316L Stainless steel
- Anti-corrosion

DH-SD8A840VI-HNI

- 1/1.8"8Mp STARVIS™ CMOS
- Powerful 40x optical zoom
- Max. 30fps@4K
- IR distance up to 450m
- IP67, IK10, Hi-PoE

DH-EPC230U-PTZ-IR

- 1/2.8" 2Mp STARVIS™ CMOS
- Powerful 30x optical zoom
- 316L stainless steel housing
- H.265/H.264 Triple-stream Encoding
- Max. 50/60fps@1080P
- Explosion Proof

DH-TPC-ACSD8620-B

- 1/1.9" 2Mp progressive scan Sony CMOS
- 640x512 VOx uncooled thermal sensor technology
- Powerful 30x optical zoom
- Anti-corrosion/NEMA 4X, IP66
- Micro SD memory, IP66

TPC-BF5600

- 640x512 vox uncooled thermal sensor technology
- Athermalized Lens(thermal),Focus-free
- Supports Fire detect&alarm
- Various lens optional(9/13/19/25/35mm)
- Micro SD memory, IP67,POE

DH-IPC-HFW8241E-Z5

- 1/2.8" 2Mp progressive scan STARVIS™ CMOS
- 50/60fps@1080(1920×1080)
- WDR(120dB), day/night(ICR), 3DNR, AWB, AGC, BLC
- Max. IR LEDs Length 50m
- Micro SD memory, IP67, PoE
- Support AI People Counting, Perimeter Protection

PRODUCT SHOWCASE

DHI-DSS7016DR-S2

- High performance stream media transfer and storage capability
- Supports distributed and cascade deployment
- Supports local storage and IP-SAN storage
- Supports max 2000 channels
- Supports management of 200 accounts and 700Mbs transfer capabilities

DH-EVS7024S-R

- Intel processor
- Max 768 IP camera inputs
- Max 1536Mbps incoming/recording bandwidth
- 24 HDDs, SAS/SATA, hot-swap, RAIDs, hot-spare
- iSCSI and Mini SAS for expanded storage space
- Redundant power

DHL550UCM-ES

- 55'' full-HD video wall display
- Industrial level DID LCD panel, suitable for extensive 7×24 continuous works
- Ultra-narrow 3.5mm side LCD patchwork
- High contrast and high brightness
- Built-in picture splicing function
- Abundant interfaces HDMI, DVI, VGA, BNC, supports video loop

DHI-M70-4U-E

- Easy and flexible configuration with pluggable card module design
- 80ch@1080P or 320ch@D1 signal encoding
- 80ch@4K or 320ch@1080P or 720ch@720P or 1500ch@D1 signal decoding
- Supports max 60 screens splicing
- 6 RJ-45 gigabit network ports for matrix control, preview and online central storage

DHI-IVS-F7500-P

- Combines face image comparison, and face image search with database functions
- Dynamic comparison register library supports up to 300,000 images
- Up to 100 channels simultaneous detection and comparison
- Search image database by time & location
- Detect faces in designated regions and enable tracking

PRODUCT OVERVIEW

Product	Description	Gate	Shipping line	Berth	Yard	Warehouse	Perimeter	Control center
VTO2000A	Emergency Video Intercom	●						
DHI-ITC302-RU1A	3M Traffic Picture Capture Camera	●						
DH-IPC-HF8231F	2MP WDR Box Network Camera	●						
DH-PFW8601-A180	Multi-Lens Panoramic Network IR Camera		●					
DH-TPC-ACPT8620C-B	Thermal Network Tribrid PTZ		●					
DH-SD6AE240V-HNI	2MP 40x IR PTZ Network Camera				●			
DH-SD60230U-HNI-SL	2MP 30x Anti-Corrosion PTZ Network Camera			●				
DH-SD8A840VI-HNI	4K 40x Starlight IR PTZ Network Camera				●			

PRODUCT OVERVIEW

Product	Description	Gate	Shipping line	Berth	Yard	Warehouse	Perimeter	Control center
DH-EPC230U-PTZ-IR	2MP 30x Explosion-Proof IR PTZ Network Camera				●			
DH-TPC-ACSD8620-B	Thermal Network Anti-corrosion Hybrid Speed Dome Camera						●	
TPC-BF5600	Thermal Network Bullet Camera					●		
DH-IPC-HFW8241E-Z5	2MP IR AI Bullet Network Camera					●		
DHI-DSS7016DR-S2	General Surveillance Management Center							●
DH-EVS7024S-R	24-HDD Enterprise Video Storage							●
DHL550UCM-ES	55'' Full-HD Video Wall Display Unit (Ultra Narrow Bezel 3.5mm)							●
DHI-M70-4U-E	Multi-Service Video Management Platform							●
DHI-IVS-F7500-P	Face Recognition Server							●

SUCCESS STORIES

Pescara Harbor in Italy

our megapixel solution successfully secured the Pescara Port. our solutions overcame unpleasant weather conditions which threatened to corrode devices, shorten their lifespan, and affect network transmissions.

- our cameras provided a comprehensive solution for all types of surveillance scenarios including superb night surveillance.
- our NVR devices satisfied storage requirements, and their RAID functionality enhanced system reliability and stability.
- The system adopts a ring networking structure with optical fiber, and guaranteed an adequate bandwidth at 108Mbps. The radio transmission system was configured at an access point of dual band 2.4/5.8GHz.

Suva Harbor in Fiji

we completed video surveillance for Suva Harbor in Fiji to guarantee the security of daily operation work.

- Multiple types of IP cameras met the various requirements of different scenes, including the outdoor working area, office hall, etc.
- 5.8G wireless transmission overcame need for wiring and ensured reliable transmission speeds.

Manila North Harbor in the Philippines

we provided a video surveillance solution for Manila North Harbor(PHMNN). Dahua installed dozens of PTZ cameras to guarantee the security of daily operations.

Hainan Yangpu Harbor in China

its megapixel solution successfully secured Hainan Yangpu Harbor through an HD surveillance solution, including HD IP cameras, encoders, IP storage and VMS platform.

- Hundreds of network cameras and speed domes
- Back end eco-savvy NVR and super NVR at monitoring center for back up storage.

Contact us

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