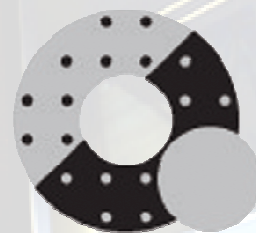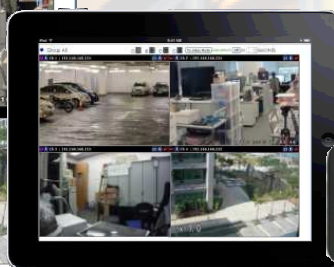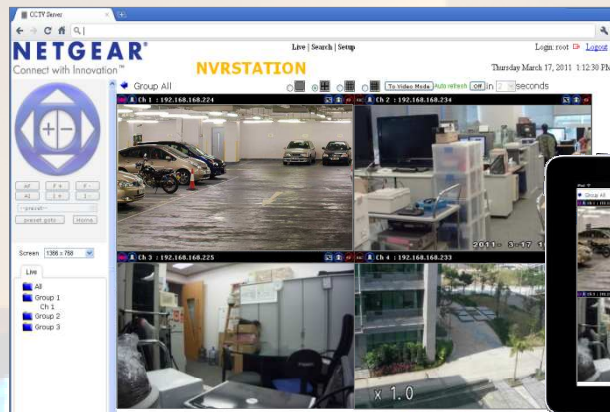# HIS Technologies HD Surveillance System

2012 香港工商業獎
HONG KONG AWARDS FOR INDUSTRIES

NETGEAR®
Connect with Innovation™

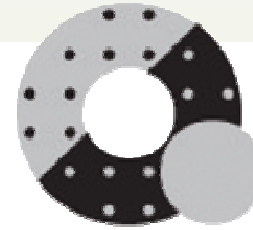| Full HD Recording	Audio Recording	Smart Search	Live Monitoring	Various Display Modes	Remote Access	Intelligent Video Analytics	Failover	Alarm Recording	Support Smart Phone	Automation Bckup	USB Storage	Timeline Search	E-map

HIS Technologies Limited

Awards for Industries

Machinery and Machine Tools Design Certificate of Merit – HIS HD Video Management System

- utilizes advanced technologies to capture videos at **High Definition (HD) quality (1920x1080P@30fps)** ;
- coverage is almost 4 times higher than that of the traditional ones;
- supports two-way HD video communications between multiple locations with low latency;
- enables remote access for real-time display and playback

HIS High Definition Video Management System

Applications of the HD Video Management System:

HD V-comm System

HD Surveillance System

HD Broadcasting System

HD Surveillance System

1. HD Camera

- **Full HD 1920 x 1080P (30 fps)**
- **10x optical zoom**
- **Motion detection**

Fixed Cam *10x Zoom Cam*

Dome Cam *Speed Dome*

2. Network

- **Cat5e Cable**
- **Optical Fibre**
- **Wireless Access Point (AP)**
- **Coaxial Cable**

COFDM Wireless AP (5.8GHz) *Network over Coaxial* *CWDM SFP Transceiver*

3. NVR

- **HD Recording**
- **Playback**

Live Video on TV Wall *CODEC Card for TV Wall* *NVR – Recording & VMS*

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High Definition NVR

Complete Recording Features:

- Supports 4/ 12/ 24/ 48 Full HD Channels (1080P Recording)
- WAN-based Recording
- Multi-resolution Live Playback
- E-map

Easy-to-use:

- Timeline Search
- Various Display Modes
- Smart Phone Apps Support

NVR - Rack Mount Series 12 Bays

NVR - Tower Series 2 / 4 / 6 Bays

Secure Solutions:

- NVR Failover Automation
- Storage Failover Automation
- Multi-level Stacked Recording
- External Alarm Box Support
- Automatic Storage Backup

Intelligent Video Analysis (IVA):

- IVA Search including Motion, Missing Objects, Invasion and Foreign Object Detections
- License Plate (LP) Search

Deployment : Company with multiple branches

HD Remote Monitoring

Branch 3, Beijing

Branch 2, Shanghai

Network

Branch 1, Macua
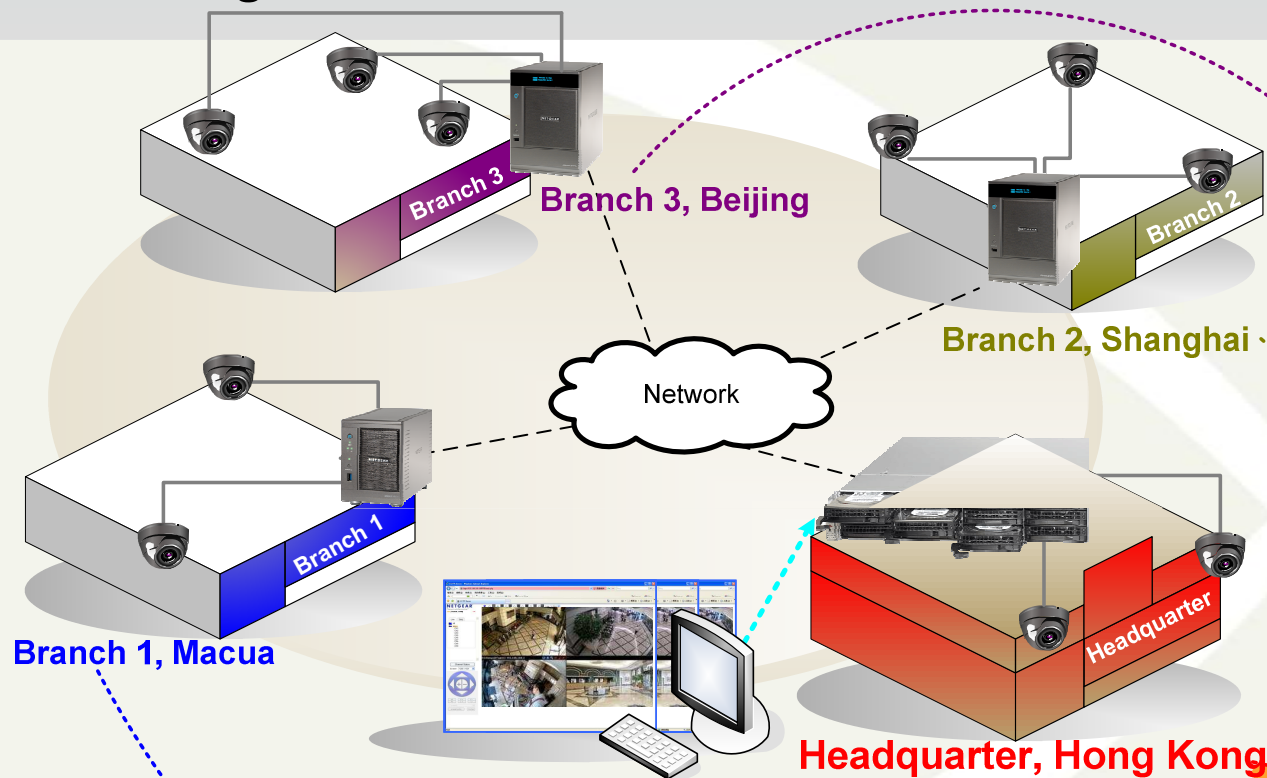
Live or playback by Remote PC to monitor all branches and headquarter.

Headquarter, Hong Kong

Beijing

Shanghai

Hong Kong
Macau

Remote Monitoring by LAN or WAN

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Deployment: Low-rise Real Estate (1 of 2)
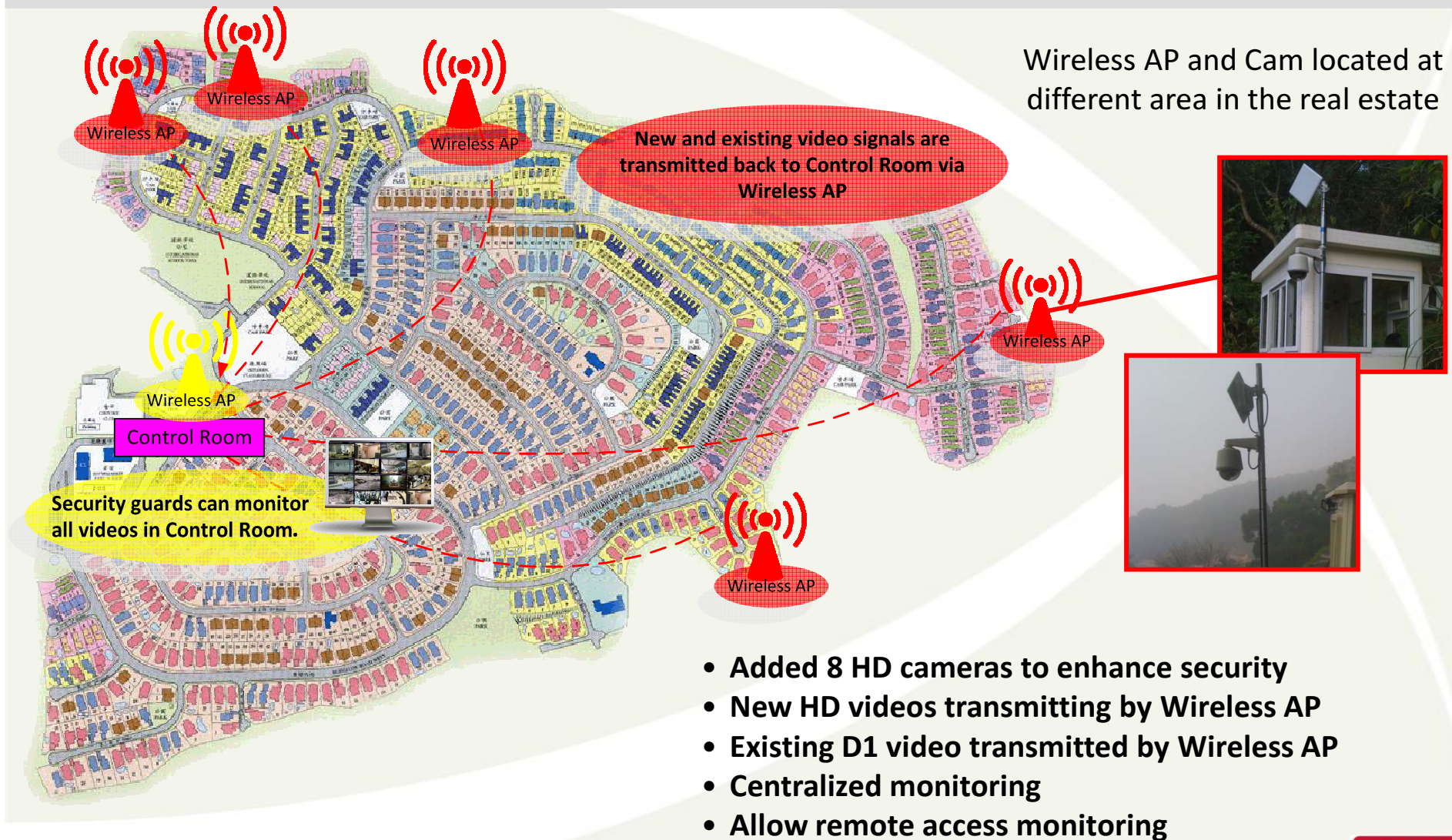
HD Surveillance System with Wireless Infrastructure

Wireless AP

Wireless AP

Wireless AP

Wireless AP

Wireless AP and Cam located at different area in the real estate

New and existing video signals are transmitted back to Control Room via Wireless AP

Wireless AP

Wireless AP

Control Room

Security guards can monitor all videos in Control Room.

Wireless AP

- **Added 8 HD cameras to enhance security**
- **New HD videos transmitting by Wireless AP**
- **Existing D1 video transmitted by Wireless AP**
- **Centralized monitoring**
- **Allow remote access monitoring**

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Deployment: Low-rise Real Estate (2 of 2)

HD Surveillance System with Wireless Infrastructure

WirelessAP.20 km   WirelessAP.5 km

Before Installation:

After Installation:

- **Max. 20km long distance**

- **IP67 / IP65 Protection (Weatherproof & dust proof)**

- **Point-to-point or multi-points wireless transmission**

- **Secure data transmission (128bit AES Encryption)**

- **HK OFTA regulation compliant**

- **License-exempt 5.8 GHz frequency**
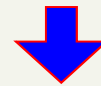
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Deployment: Real Estate

HD Surveillance System with Fiber Infrastructure

Before Installation

After Installation

Control Room
- Re-arranged existing SD video display and recording
- Allows remote access: log-in to system via computer
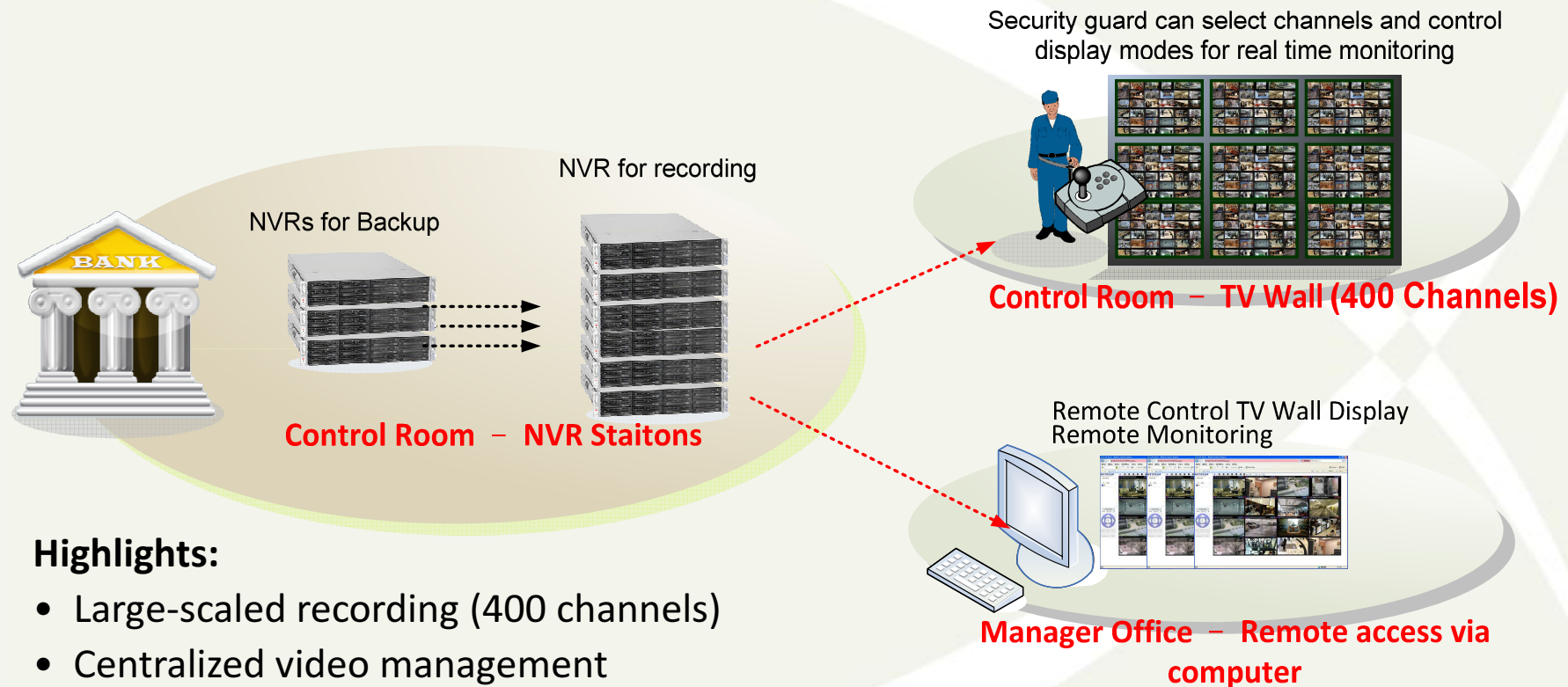
New TV Wall
- Newly added HD Cam x 25

12-bay NVR
- Outdoor Fiber Cable
- Outdoor Cat5e Cable

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Deployment: Banking Industry

D1 & HD surveillance system high security, stability, scalability and reliability

Security guard can select channels and control
display modes for real time monitoring

NVR for recording

NVRs for Backup

Control Room – TV Wall (400 Channels)

Control Room – NVR Staitons

Remote Control TV Wall Display
Remote Monitoring

**Manager Office – Remote access via
computer**

Highlights:

- Large-scaled recording (400 channels)
- Centralized video management
- Automatic failover system
- Bank level security
- Allows remote monitoring and remote control TV wall display
- Compatible with various IP cameras

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Compatible with Various HD Camera

HIS NVR Features Overview

Real-Time Monitoring
Diversified modes for live monitoring
Multi-server monitoring (Multi-RTSP)
PTZ & speed dome
Preset position
Digital zoom
Event notification by on screen display (OSD)
Video snapshot
E-map
Instant action - snapshot, play audio

Recording Features
Continuous recording, manual recording & schedule recording
Alarm recording
Alarm recording schedule
User-defined action recording (e.g. motion detection, tampering etc.)
Pre-alarm, and post-alarm recordings
Codec: H.264 / MPEG4 / MJPEG
Audio recording

Event Overview
Motion detection
Alarm input
Connection failure
Recording failure
User-defined event

User Notification
SMS
Email
Buzzer
User-defined Action

Security Control
Authority management (Define User Roles & Authority)
Auto logoff
Host access control
On-line user list
Detailed event and system logs (include users' networking services and recording data access record)

Search Features
Data search by timeline
Data search by event
Data search by intelligent Video Analytics (IVA)
Playback control – fast forward and back forward
Schedule remote replication to NAS for video backup
Backup to external USB storage

Backup
Scheduled backup
Secured remote backup with compression & encryption
External USB storage

Others
Intelligent auto power on after power recovery
Support UPS
Advanced RAID
Online RAID capacity expansion
Online RAID level migration
Easy configuration and management
Smart search of IP cameras for quick configuration
Quick links to network cameras

Reference Cases

Singapore Civil Defense Force (SCDF)

- **Distance between Jurong Island (裕廊島) and the Headquarters: about 25km**

- **The Headquarters of SCDF in the Eastern part of Singapore controls the Pan/Tilt/Zoom of the cameras in Jurong Island**

- **The real-time HD videos captured at Jurong Island are transmitted through the optical network to the Headquarters.**

Civil Deference Academy, Singapore

- Civil Defence Academy (CDA) provides training to Global Partners

- All training are recorded in HD quality video

- Real-time HD live videos can be transmitted to the SCDF Headquarters (Virtual Classroom in HD)

NSTI, Singapore

- **National Service Training Institute (NSTI) offers UN approved rescue training**

- **All training are recorded in HD quality video**

- **Real-time HD live videos can be transmitted to the SCDF Headquarters (Virtual Classroom in HD)**

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The University of Hong Kong

Highlights

- 150 cameras among main campus
- SD & HD Camera with Night-vision
- Network Infrastructure by Optical Fiber
- Over 150 Videos on TV wall
- Digitalized Video storage
- Easy-to-use Video Management Software
- Scalable upto 500 cameras

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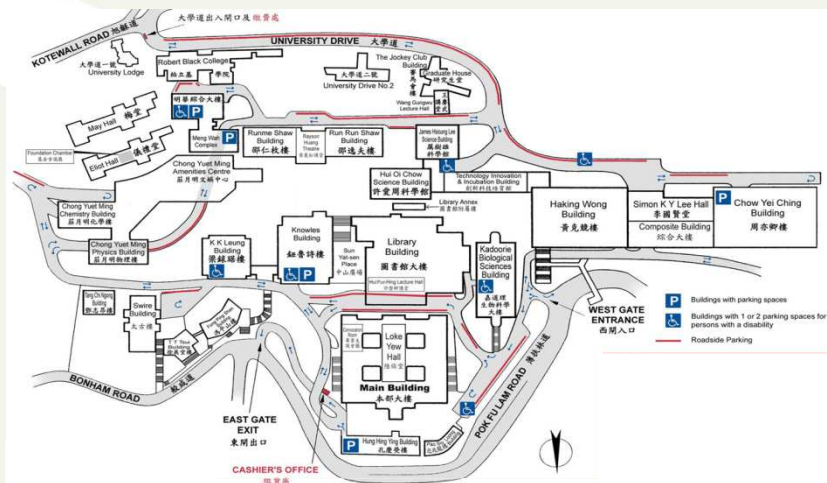
Hong Lok Yuen, Taipo, HK

Before Installation:

After Installation:

- Added 8 HD cameras to enhance security
- HD videos transmitting by Wireless AP
- Existing D1 video transmitted by Wireless AP
- Centralized monitoring
- Allow remote access monitoring

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Villa Rhapsody, Saikung, HK

Villa Rhapsody is a middle low-rise real estate located at Sai Kung.

Project: 26 HD Cameras with Fiber Infrastructure.

Before: Installation

Equipments include:

- **Full HD Cam (1920x1080p)x 26**
- **NVR x 1**
- **HD Codec Card x 25**
- **Network Switch**
- **Outdoor Fiber**
- **Outdoor Cat5e Cable**

After Installation

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Beach Village, Discovery Bay

Beach Village of Discovery Bay is a middle low-rise real estate located at Lantau Island.
Project: 10 HD Cameras with COFDM wireless Infrastructure.

愉景灣
DbAY
discovery

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Neo Horizon, Discovery Bay

Neo Horizon of Discovery Bay is a high-rise real estate located at Lantau Island.
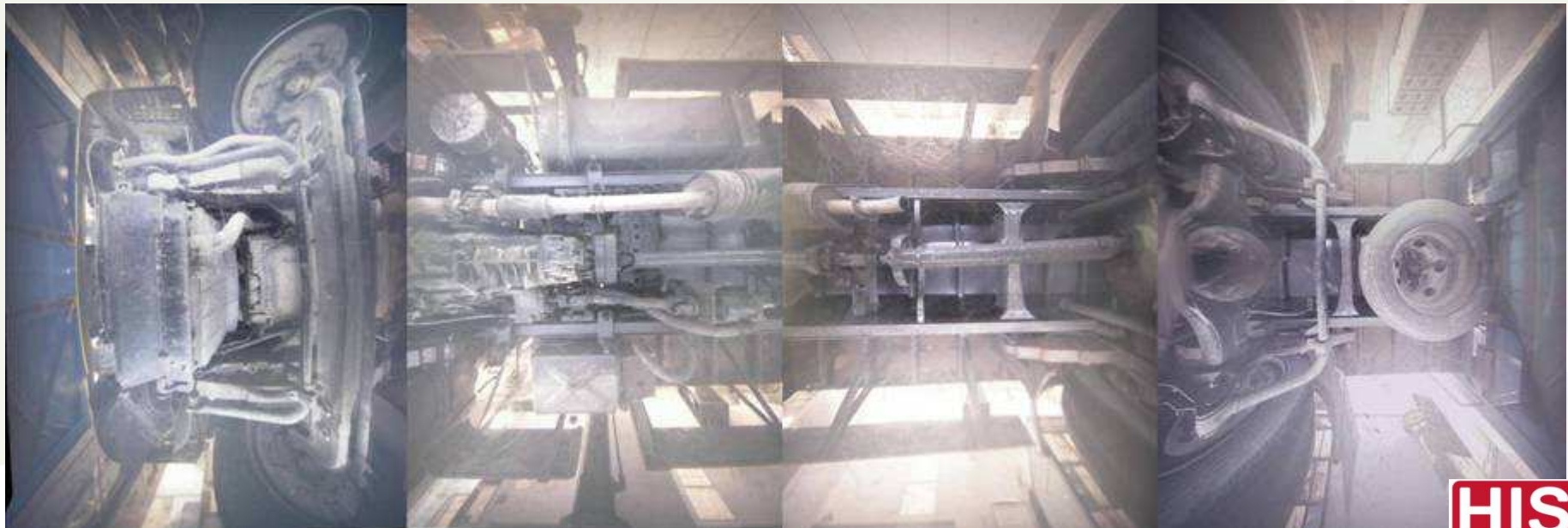**Project: 15 HD Cameras with COFDM wireless Infrastructure.**

Correctional Services Department

Under Vehicle Surveillance System (UVSS) specialized for CSD

Objective:

Scans, monitors and digitally records HD video images of the undercarriage of vehicles for explosive, attached packages and/or forbidden objects

AM2608平治316型10座客車

車身全長6100mm 車身離地280mm

車身全潤除鏡1930mm，車身全高約2750mm

AM5653平治816型32座載客巴士

車身全高：2720mm

車身全長：8200mm

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Project References in HK

- **HSBC**
  (Coaxial-based, High-Secured CCTV System)
- **Correctional Services Dept (CSD),**
  Government of HKSAR
- **University of Hong Kong**
  (Large Scale, High-Secured CCTV System)
- **Robert Black College of HKU**
  (Campus-wide Surveillance System)
- **Discovery Bay**
  (Low-density real estate)
- **Chi Fu Fa Yuen**
  (High-rise real estate)
- **Eastern Harbor Tunnel**
  (Public transports facility)

HIS Professional Technical Team

Professor Chinlon Lin
Scientific Advisor

- **Inventor of tunable infrared fiber Raman lasers, dispersion-shifted fibers (DSF) and dispersion- compensating fibers (DCF).**
- **Ex-Director of Broadband Lightwave Systems Research at Bellcore (Bell Communications Research)**
- **Fellow Member of IEEE Photonics Society and OSA (Optical Society of America)**

Mr. Boris Chan
Founder & CTO

- **Doctor of Philosophy (Cand.) in Computer Science**
- **Master of Philosophy in Computer Science**
- **Professional Member of ACM**

Dr. Jacob Sun
Senior System Engineer

- **Doctor of Philosophy in Electronic Engineering**
- **Over 10 years' experience in engineering industry**

HIS Technologies

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