2018

Dahua Drone Introduction

THE FUTURE OF POSSIBLE

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PART ONE

Drone Introduction

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PART TWO

Dahua Drone

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PART THREE

Application of Drone

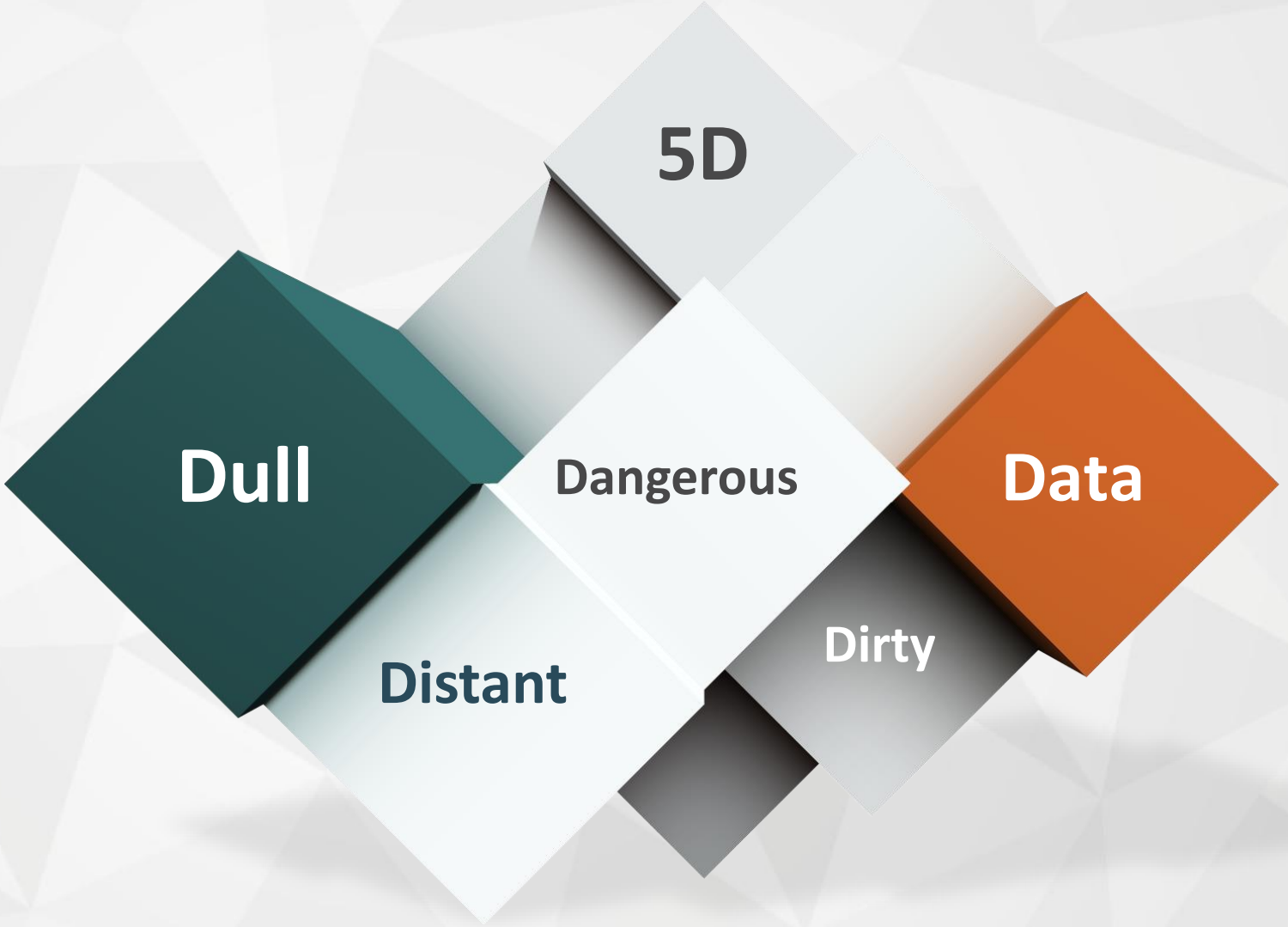
1
Drone
Introduction
THE FUTURE OF POSSIBLE

Drone is an aircraft that is transmitted by radio signals, manipulated manually or by flight control software.

Drone has the functions of low altitude flight, long-distance control, high-precision observation, automatic flight and so on. It can be used in all kinds of complex environments such as mountains, rivers, cities, wilderness, oceans and highlands. It has been widely applied in various fields.

Drone can achieve high resolution image acquisition through different devices, transmit real-time aerial images to the ground terminal, and send live scene to the command center platform in real time, and effectively monitor the dead angle and blind area through the special aerial view without shielding.

Why use drone ?
What to solve?



Problems in public security…

Traffic jam where is hard to reach

Danger in terror attack

Can not rescue timely

Current situation in electric power (pipe) patrol …

Walking on wire is dangerous

Inspection work is dull

Electric shock risk

Outdated plant protection method…

The pesticides are dirty and also harmful to health.

Low efficiency

Spray trucks can damage crops

The administration status of drone…

Drone breaks into sensitive area.

White House

Prison

Airport

2

Dahua Drone

Dahua Technology is a leading solution provider in the global video surveillance industry. With more than 13,000 employees all over the world, Dahua solutions, products, and services are used in over 180 countries and regions. Dahua has 40+ subsidiaries and offices globally covering Asia, the Americas, Europe, Middle East, Oceania, Africa, etc. With its surveillance solutions, Dahua delivers unparalleled quality, reliability and stability.

Dahua is committed to provide its highest quality solutions and products with the latest technologies to enable end users to perform their business successfully.

Function	HD
	Thermal
	Speaker
	Throwing
Performance	Wind
	Rain
	Low temperature
	High altitude

A flight platform with the software copyright of the national ground station ！

Safety of flight security ！

9 invention patents approved

20+ patents filed

Established in 2016

100+
Engineers

Dahua intelligent

15 Industry extensive use

Strive for industry Leadership

Focus on industrial applications

Industrial chain integration platform for police, security and agriculture

Reinforced carbon fiber

Diagonal distance: 666mm

Max. Takeoff altitude:5000m

Max. speed: 25m/s

12000mAh

Endurance:25min

X650

Wind resistance: level 6

Operation radius: 3~5km

Max Speed: 25m/s
Max Flight Time: 25min
Diagonal Distance: 666mm
Max Take Off Weight: 6.3kg
Max Data Transmission Distance: 3~5km
Satellite Positioning System: GPS/GLONASS/BEIDOU
Hover Accuracy (Relative Accuracy), Horizontal : ± 1.5m, Vertical: ± 0.5m

Reinforced carbon fiber

Diagonal distance: 940mm

X820

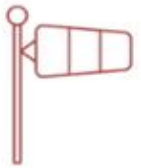
Max.Takeoff altitude:5000m

Max. speed: 25m/s

22000mAh

Endurance:45min

Wind resistance: level 6



Operation radius: 3~10km

Max Speed: 25m/s
Max Flight Time: 45min
Diagonal Distance: 940mm
Max Take Off Weight: 10kg
Max Data Transmission Distance: 3~10km
Satellite Positioning System: GPS/GLONASS/BEIDOU
Hover Accuracy (Relative Accuracy), Horizontal : ± 1.5m, Vertical: ± 0.5m

Reinforced carbon fiber

Diagonal distance: 1550mm

Max.Takeoff altitude:5000m

Max. speed: 15m/s

2*27000mAh/pcs

Endurance:60min

Wind resistance: level 6

Operation radius: 3~10km

X1550

Max Speed: 15m/s
Max Flight Time: 60min
Diagonal Distance: 1550mm
Max Take Off Weight: 23.6kg
Max Data Transmission Distance: 3~10km
Satellite Positioning System: GPS/GLONASS/BEIDOU
Hover Accuracy (Relative Accuracy), Horizontal : ± 1.5m, Vertical: ± 0.5m

6M 30X PTZ camera

30x Optical Zoom
Video resolution
2592*2592 (6MP)

2M 30X PTZ camera

30x Optical Zoom
Video resolution
1920*1080(2MP)

Thermal camera

16x Digital Zoom
Video resolution
640*512

4K PTZ Camera

30x Optical Zoom
Video resolution
4000*3000

Thermal Hybrid PTZ

Thermal Video resolution
640*512
Visible Light:2MP
30x Optical Zoom

Live Throwing

2MP 3-axis PTZ
Max. Payload Capacity:10Kg

Live broadcasting

2MP 3-axis PTZ
Broadcast Distance:100m

Gas Detection

Number of Sensors：6
Detection Accuracy：0.01-50ppm

3D Camera

Image sensor: 5x CMOS sensor
Total Image Resolution: 100 MP
3D modeling
weight: 1.4kg

3 in 1 device

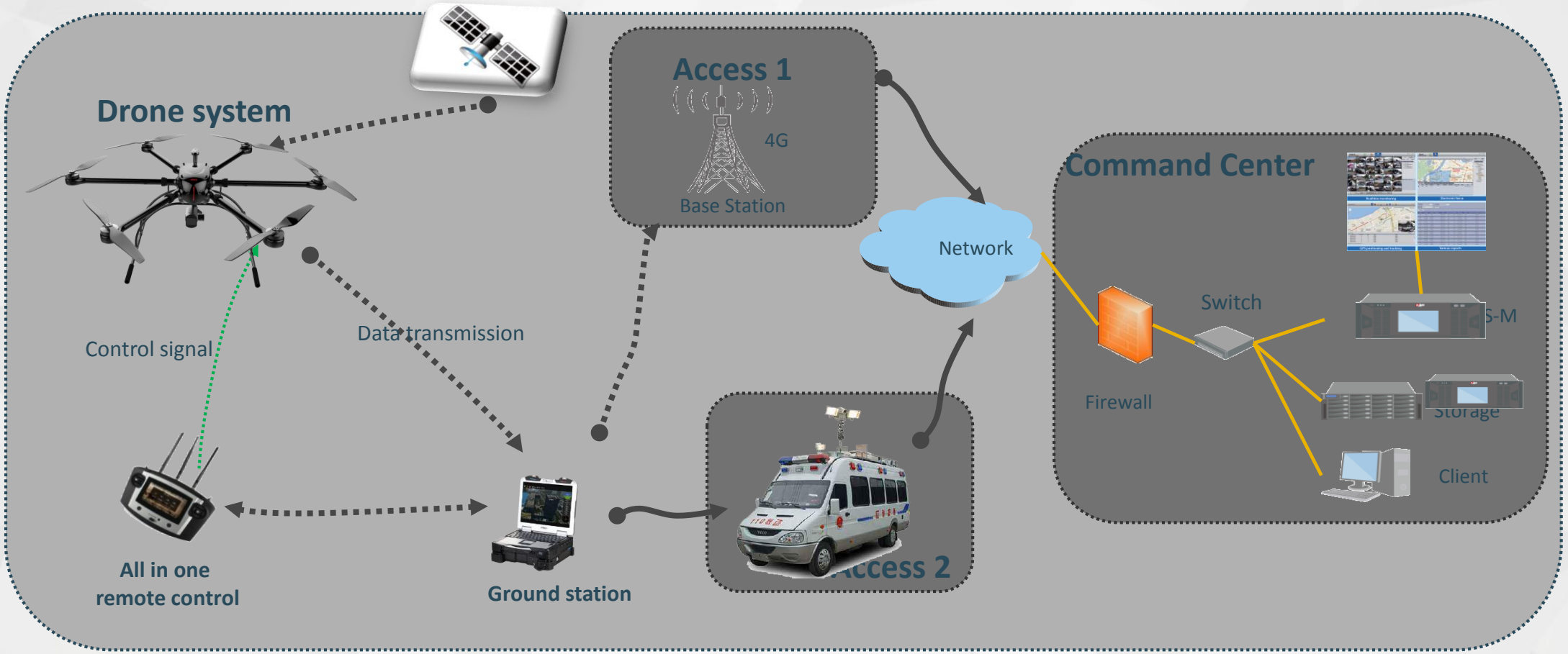
(Throwing, broadcasting and zoom camera)

12x Optical Zoom
Video resolution
1920*1080 (2MP)
Broadcast distance: 100m
Hanger Hook Unit: 2

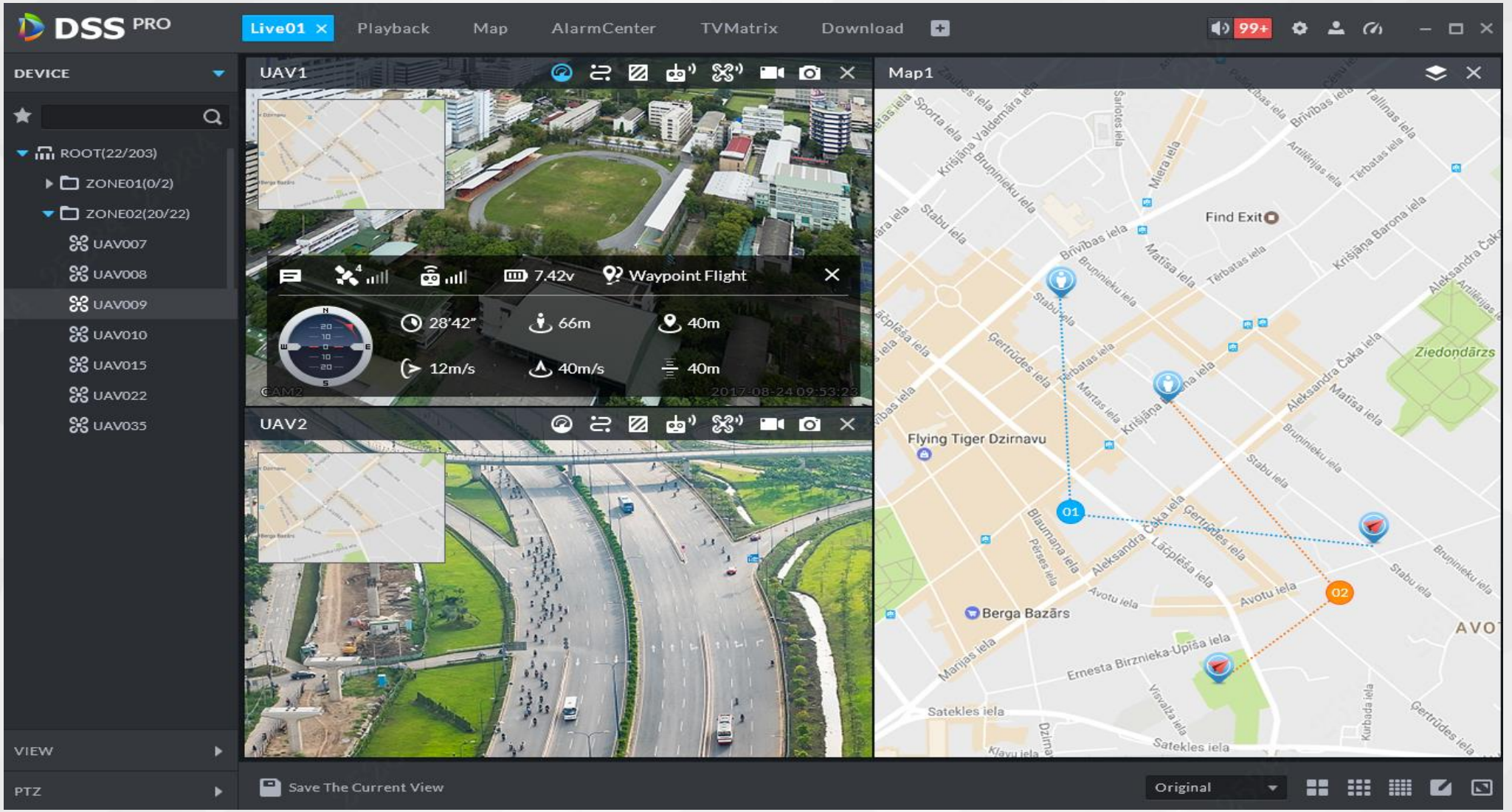
Drone control platform

Data is controlled in real-time

3 Drone Applications



Solution Architecture


DSS PRO
Live01
Playback
Map
AlarmCenter
TVMatrix
Download
99+
DEVICE
ROOT(22/203)
ZONE01(0/2)
ZONE02(20/22)
UAV007
UAV008
UAV009
UAV010
UAV015
UAV022
UAV035
VIEW
PTZ
UAV1
7.42v
Waypoint Flight
28'42"
66m
40m
12m/s
40m/s
40m
UAV2
Map1
Find Exit
Flying Tiger Dzirnavu
Berga Bazārs
Ziedondārzs
Save The Current View
Original

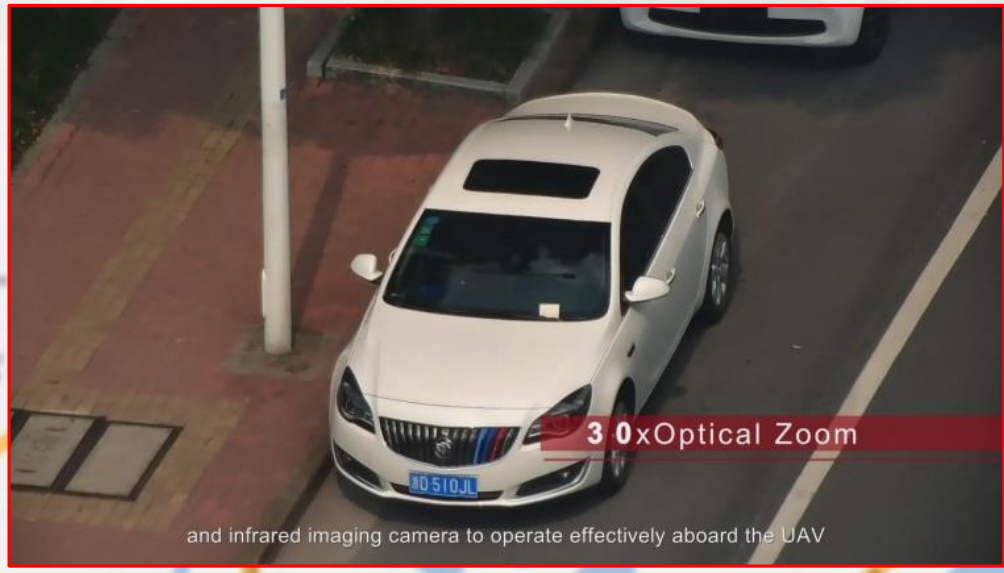
In the field of safety monitoring, Drone can be used to carry out police work such as city patrol, monitoring of large activities, criminal suspects tracking, rescue of disaster and etc.

In the scene of hijacking, violent terror cases, Drone is the perfect solution in entering the areas which are difficult to approach, the Drone can also track the suspects in addition to face recognition.

In the fire application, especially in the scene of high rise buildings, the real-time transmission of images through Drone is easy to organize and can greatly improve the reachability.

30/40x Optical Zoom

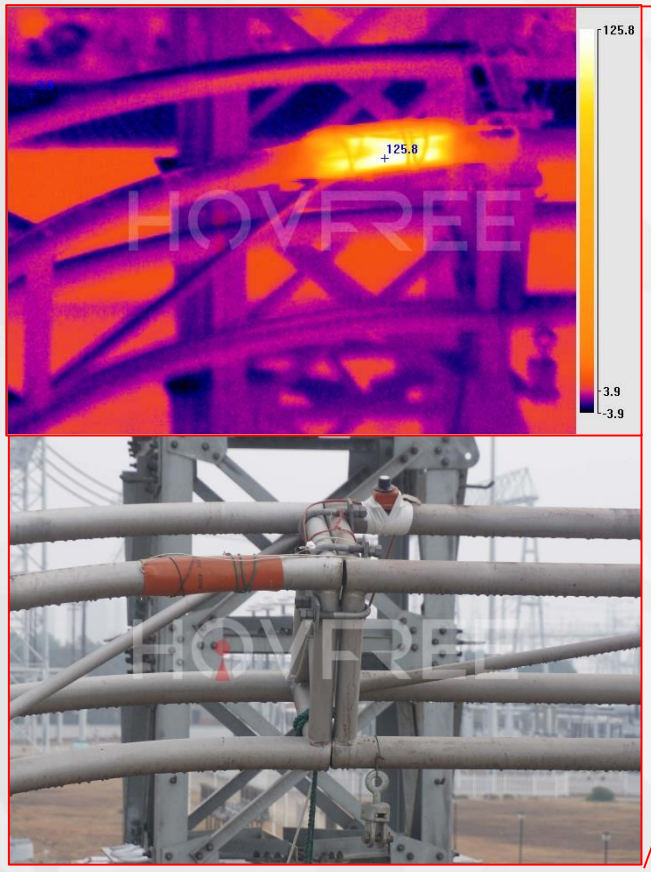
浙D·510JL



High concealment: detect the target far away

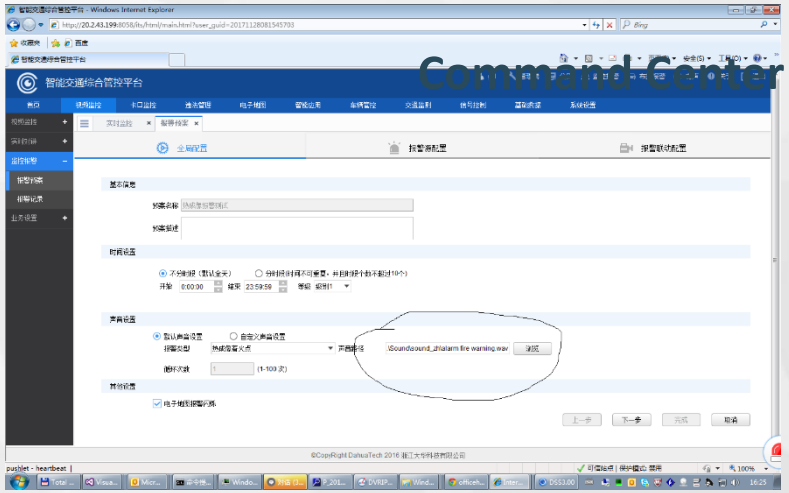
High concealment: detect the target far away

The multi-rotor Drone is flexible in flight maneuver, simple in operation, high in hover stability and lower in gust ability. The image information can be collected for line tower rod, insulated string, gold equipment and other equipment. Images and video were obtained for technical personnel to be analyzed.



Thermal
Hybrid
Display

Network

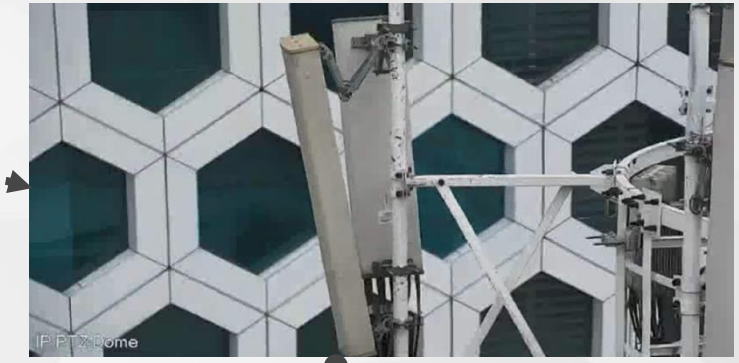


Command Center

High temperature point alarm

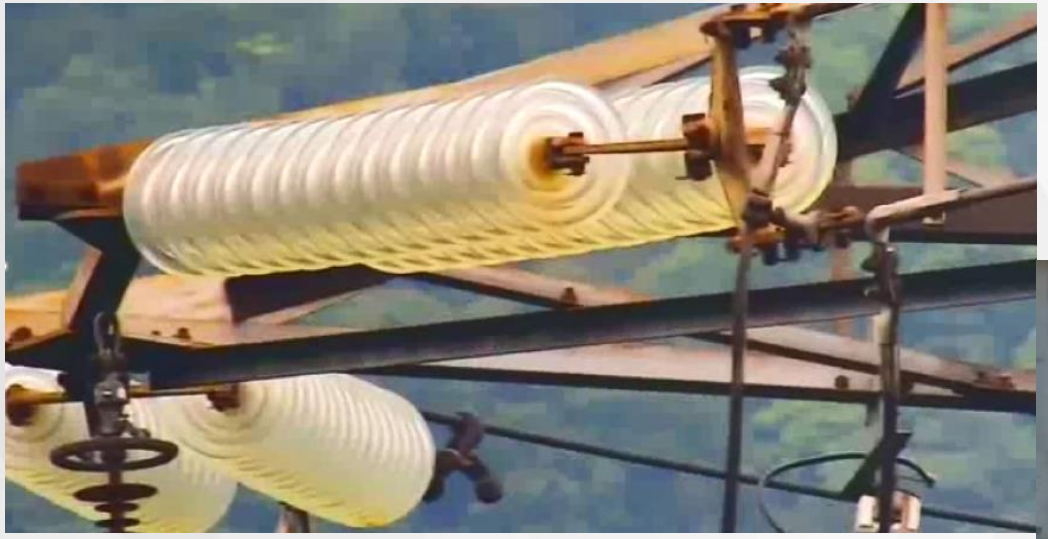
IP PTZ Dome

IP PTZ Dome


IP PTZ Dome

UP
IP PTZ Dome

IP PTZ Dome



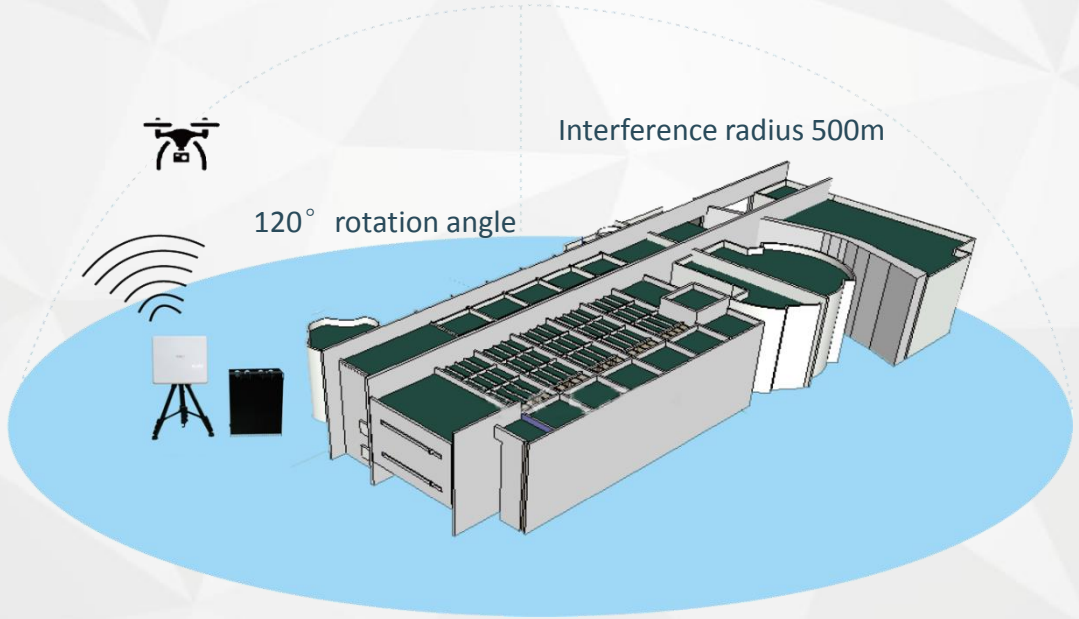
Detect the corrosion, shifting and transformation of steel structural bridge

By 2025, the agricultural Drone market is expected to reach $3 billion, and the economic impact is expected to reach $30 billion. In 2025, the market share of the agricultural Drone market in all commercial Drone markets would be up to 80%.

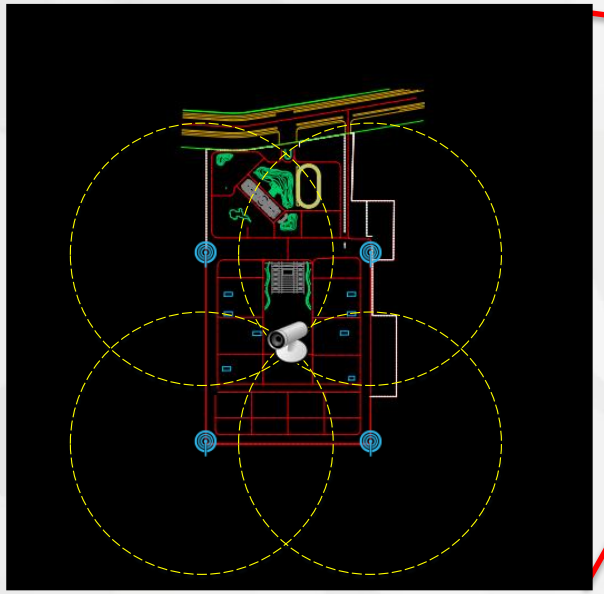
With the increasing intelligence of Drone plant protection, the real “one key” start and fall, the “everyone-operable” spray are no longer a dream.

With the rapid development and popularization of unmanned aerial vehicles, the hidden dangers of the Drone are gradually presented, while they are widely used in different fields.

The Goal of Drone interference is to detect by the optical sensing device, radio signals and other hardware in designated area within the safe range. A defense system for low altitude Drone identifies illegal intrusion with early warning, tracks, analyzes and recognizes the target and by means of electromagnetic interference to destroy the dangerous target.



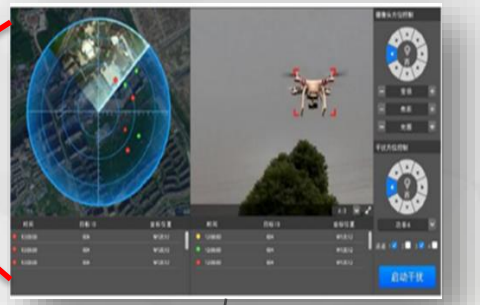
Radar scanning



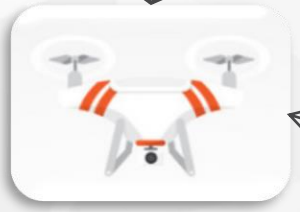
Scanning radius≥800m

link

Lock the drone

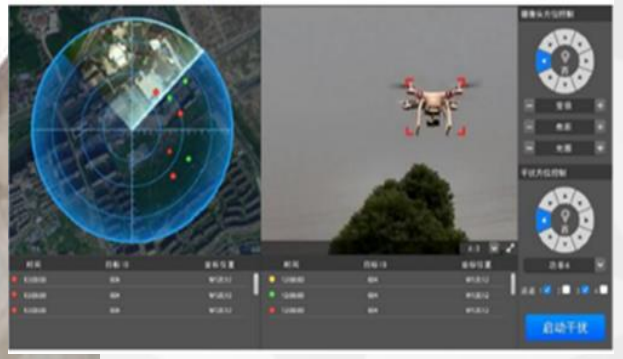


Find drone



landing

shoot the drone



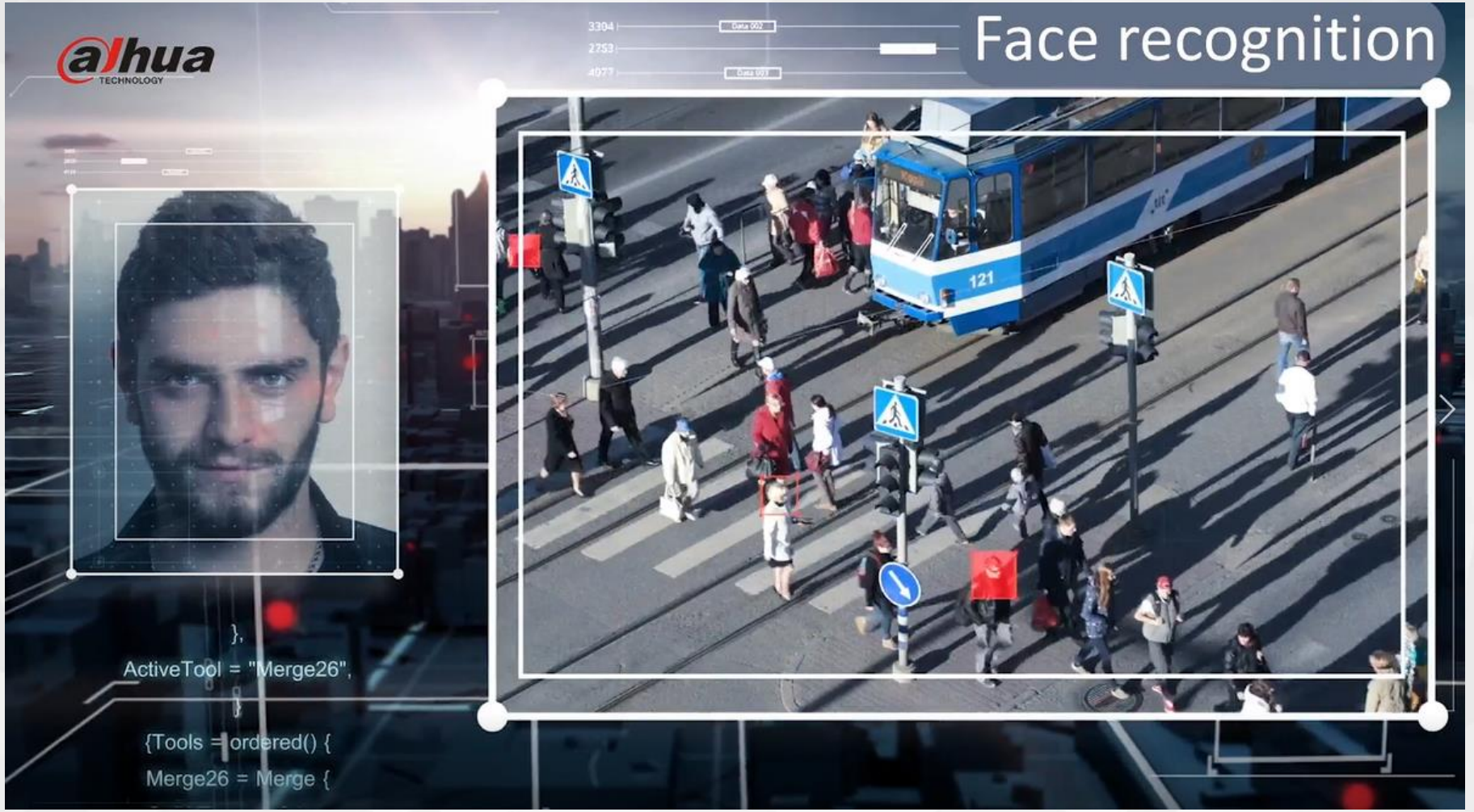
The optical targeting and positioning cabin was tracked and observed through the high altitude point, until the aircraft was found and identified by optical observation. Finally, counter attack

Live Throwing

Live Broadcasting

Gas Detection

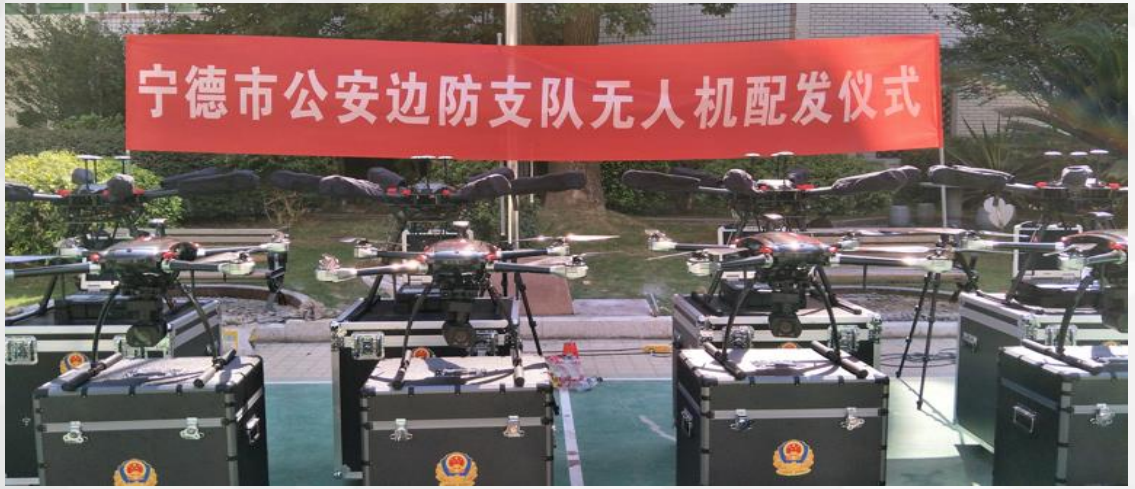
3D Modeling of Real Scene



Face Recognition is realized with the integration of drone together with intelligent face recognition server

License Plate Recognition (LPR) is realized with the integration of drone together with intelligent LPR server

Ningde City Border Security Project



Background :

- Ningde city border Police require a innovative and concealed solution in order to survey criminal activity among the border.

Solution & Products :

- Quadrotor UAV DH-UAV-X820 ;
- 6 Megapixel ,30x optical zoom PTZ Camera DH-UAV-GA-V-6030U;
- UAV Control & Management Platform DH-UAV-MS1000;

Customer Value :

- Fast access to the remote area
- Concealed investigation method. Ensuring the personal safety of border Police

Xiamen City intelligent Traffic Project

Background :

- XiamenTraffic police require a new solution to secure large scale event.

Solution & Products :

- Quadrotor UAV DH-UAV-X820 ;
- 6 rotor UAV DH-UAV-X1550 ;
- 6 Megapixel ,30x optical zoom PTZ Camera DH-UAV-GA-V-6030U;

Customer Value :

- Achieve unified management for ground and air surveillance system ;
- With UAV the command center is able to fully cover Big events and improve security
- Thanks to the UAV ‘s easy access ability , Police ‘s working efficiency is greatly improved

Railway Line Patrol Project

Background :

- Traditional Railway line patrol service is purely depend on on foot patrol. Sector like Bridge , tunnel which is hard to access is now easy to cover by on foot patrol.

Solution & Products :

- Quadrotor UAV DH-UAV-X820 ;
- 6 rotor UAV DH-UAV-X1550 ;
- 6 Megapixel ,30x optical zoom PTZ Camera DH-UAV-GA-V-6030U;
- 3D mapping Camera DH-UAV-GA-V-545OP ;

Customer Value :

- Solve the Problem of difficult access to bridge and tunnel ;
- Automatic identify corrosion and shedding of bolts , improve patrol efficiency ;

Xinjiang military base Project

Background :

- The military base is a training base, which undertakes major joint military exercises . UAV patrol is a significant method to ensure military base security.

Solution & Products :

- 6 rotor UAV DH-UAV-X1550 ;
- 6 Megapixel ,30x optical zoom PTZ Camera DH-UAV-GA-V-6030U

Customer Value :

- UAV provide a very efficient way to manage and survey emergency event ;

Sao Paulo municipal project

Background :

- The Sao Paulo Municipal require a fast and effective way to response to emergency event

Solution & Products :

- 4 rotor UAV DH-UAV-X820 ;
- 6 Megapixel ,30x optical zoom PTZ Camera DH-UAV-GA-V-6030U

Customer Value :

- UAV provide a very efficient way to manage and survey emergency event ;

THANKS
THE FUTURE OF POSSIBLE