

VERTICAL BUSINESS SOLUTIONS

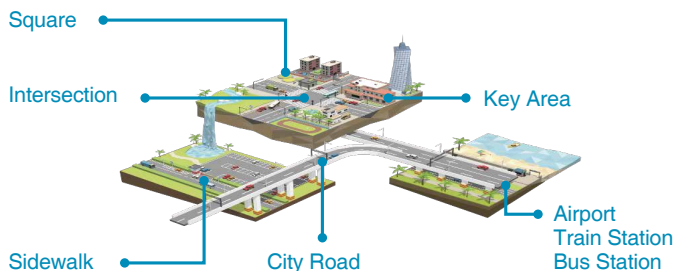


VERTICAL BUSINESS SOLUTIONS

Video Intelligence Enable a Safer City

Dahua Smart City Solution

Scenarios

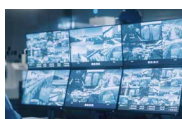


【Level 1】 Peripheral Areas		
Airport	Train Station	Bus Station
【Level 2】 Urban Roads		
Sidewalk	City Road	Intersection
【Level 3】 Key Areas		
Square	Hospital	Bank

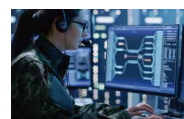
Pain Points



Lack of evidence to catch targets and reduce criminals



Insufficient resources to process massive cases



Backward system leads to lack of effective prevention measures

Highlights



Intelligent Search

- Supports advanced search using Big Data, filtering attributes of object such as color, type, location, etc.
- Supports customized dashboard and AI analysis
- Supports system renovation and quick AI upgrade



Vehicle Big Data

- Identifies over 80 brands and various models, and supports millisecond-level arming of vehicles
- Supports Big Data to develop travel patterns, improving investigation efficiency



Command & Dispatch

- Enforcement in one map
- Emergency process and fast dispatch
- Mobile arming enlarges enforcement coverage



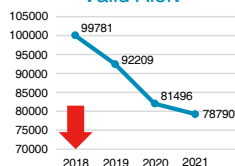
AR Panorama

- Integrates with video and map
- More convenient visual checking of scenes in real-time

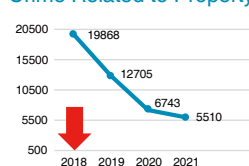
Value

After deploying The Dahua Digital City solution, the urban safety level of Hangzhou has been significantly improved.

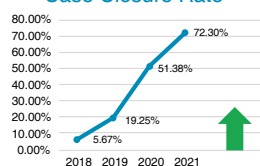
Valid Alert



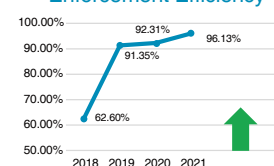
Crime Related to Property



Case Closure Rate



Enforcement Efficiency



Modular Design
Supports Partner Ecosystem

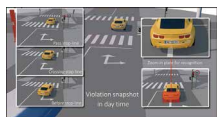
Solution Competence

Customer Centric
Provides Flexible Customization

Video AIoT Assistance in Road Safety

Dahua Smart Traffic Law Enforcement Solution

Scenarios



Multiple Road Violation Detection



Violation Review & Penalty



Urban Traffic Data Status

Pain Points



Lack of evidence to catch violations and reduce accidents

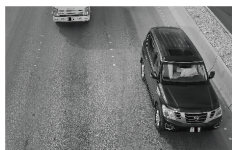


Low efficiency in processing massive violation data



Poor sensing of traffic status, making it difficult to optimize traffic

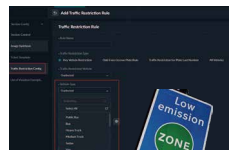
Highlights



19 Types Violations Detection by cameras

- Phone Using and Seatbelt Wearing (Industry-leading)
- Speeding / Less speed
- Red light straight/turn
- Illegal lane change

Up to 8-lane coverage per unit, and supports multiple violation detection.



Section and Restriction Control with Combined Rules

- Section speeding/lane change
- Car focus restriction
- Restriction by plate number
- Restriction by vehicle type

Build low emission zone with real-time alarms or violation records



Traffic Dashboard for Decision-Making

- Analysis of violation ranking provides governance direction
- Instant analytics enables fast decision making based on vehicle speeds, flow, etc.



Flexible Docking with Exited System

- Dahua Development: Update violation data with gateway server that meets existing protocols
- Third-party Development: Use Dahua Platform API directly

Value



Violation detection

Increased by 50% in the 1st year
Increased by 40% in the 2nd year



Fatal accidents

Reduced by 12% in the 1st year
Reduced by 10% in the 2nd year



Number of accidents

Reduced by 15% in the 1st year
Reduced by 20% in the 2nd year



Traffic congestion time

Reduced by 10% in the 1st year
Reduced by 15% in the 2nd year



Saves labor cost

Violation fines
Estimated ROI: 18 months



Modular Design
Supports Partner Ecosystem



Solution Competence



Customer Centric
Provides Flexible Customization

Intelligent Road Traffic Governance

Dahua Smart Road Signal Control Solution

Scenarios



Traffic Flow Monitoring



Signal Light Planning Management



Priority Services

Pain Points



Unclear road traffic conditions and lack of basis for decision-making

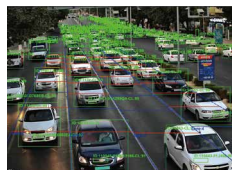


Passing through intersections during peak hours requires long waiting time



Unnecessary waiting for pedestrians and vehicles on the sidewalk

Highlights



High Performance Traffic Flow Monitoring

- Video detection, no road infrastructure damage
- Video and radar fusion, capable of flow detecting up to 350m
- Supports provide ANPR, alarms, etc. information to build traffic big data



Single Intersection Signal Control

- Fixed period control
- Actuated control
- Adaptive control
- Supports smart intersection that runs independently without a platform



Smart Signal Control Center

- Multi-intersection adaptation analyzes traffic flow and auto-scheduling
- Real time monitoring and manual control of intersection status
- Smart O&M: traffic data history reports and device health status



Special Priority Services

- Special Task Route: Provides signal control for specific route tasks (e.g. fast passage approval)
- Sidewalk Crossing: Dynamic signal control based on traffic flow, reducing pedestrian waiting time

Value



Reduces Waiting Time

Vehicle's waiting time reduced by 17%
Pedestrian's waiting time reduces 20%



Improves Passage Efficiency

Passage efficiency improved by 15%



Improves Pedestrian Safety

Accidents reduced by 12% by improving road order



Saves Human Cost

Control center saved 40% manpower

Modular Design
Supports Partner Ecosystem

Solution Competence

Customer Centric
Provides Flexible Customization

Secure, Convenient, Economical

Dahua Smart Highway Solution

Scenarios



Highway Incident Detection



Toll Operation



Traffic Flow and Violation Detection



Operation and Information Service

Pain Points



Slow accident response and high risk of secondary accidents



Poor flow situation sensing and weak information services



Low tolling efficiency and high manpower cost

Highlights



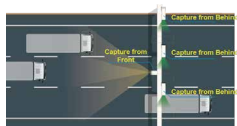
Powerful and Flexible Accident Detection Capabilities

- 20 Event Detection Types: wrong-way driving, pedestrian, debris, etc.
- Front-end or central intelligence
- Radar detects vehicles from up to 350m
- Thermal technology detects early fire



Highway Traffic Information Release by Traffic Sign System

- Real time release of road conditions to assist in route planning
- Accident linkage reminder to prevent the situation from worsening



Structured Analysis of Vehicles to Help Improve Tolling Efficiency

- Video vehicle classification and rapid collection of traffic flow status
- Detect the number and distance of axles to achieve refined vehicle classification
- Highway traffic's Big Data, and sensing of road network situation



Value



Enhances Safety

Improves incident response time by 60%, providing quick response to accidents



Improves Experience

Improves toll gate passing efficiency by 20%, prompting potential risks via the VMS system



Reduces Operation Cost

Saves 40% manpower related to accident handling and tolling management



Modular Design
Supports Partner Ecosystem



Solution Competence



Customer Centric
Provides Flexible Customization

Less Time Wasted, Better Parking Experience

Dahua Smart Parking Solution

Scenarios



Vehicle Entrance
& Exit



Indoor Parking
Areas



Roadside



Outdoor Parking
Areas

Pain Points



The distribution of parking spaces is complex, making it difficult to find parking spaces



High cost, manual operation, and low efficiency in maintenance



Inefficient entrance and exit management can easily lead to congestion

Highlights



Intelligent Management of Parking Spaces

- Special parking space reservation
- Vacant parking spaces statistics
- Parking over line detection
- Parking space occupancy alarm



Intelligent Management of Entrances and Exits

- Multiple release strategies, supporting fuzzy matching
- Comprehensive parking records, including snapshots and videos
- Accurate ANPR improves efficiency



Parking Guidance System

- Multi-level parking guidance system
- Car locator device helps find parked vehicles quickly
- Reduces search time to alleviate congestion



On-street Parking Detection

- Geomagnetic detector on the ground reduces the impact on street spaces
- High-point camera detection reduces operation and maintenance costs

Value



Improves Time Utilization

- Saves time finding parking space by 15% , and saves finding parking space mileage by 45%
- Reduces 40% of operation and maintenance time



Improves Traffic Efficiency

- Improves the efficiency of entry and exit traffic management by 35%
- The parking guidance system reduces many unnecessary vehicle stalls and slowdowns



Intuitive Data Analysis

- Shows the operation of parking lots during a specific period
- Assists managers in making decisions to improve parking space reuse and benefits

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Supports Partner Ecosystem

Solution Competence

Customer Centric
Provides Flexible Customization

More Secure & Efficient Transportation System

Dahua Smart Bus Solution

Scenarios



Public Bus

Drivers and fleet management



School Bus

Comprehensive protection of students



Truck

Escort for the whole route

Pain Points



Safety Issue

- Irregular driving behavior
- High accident rate
- Hard to find evidence



Management Difficulties

- Lack of accurate passenger flow data
- Manual attendance of drivers



Lack of Benefits

- Lack of guidance
- Lack of extra revenue
- Dispute problem

Highlights



Starts from Bus Station

- Automatic attendance checking
- Entrance & Exit management



On the way

- Active prevention
- DSM (Driver Status Monitor)
- ADAS (Advanced Driver Assistance System)
- BSD (Blind Spot Detection)



Passengers Get On/Off the Bus

- Schedule optimization based on passenger count
- Suspect identification
- Student attendance and double-check system

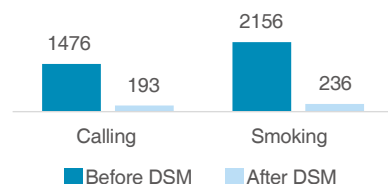


Arrive at the Bus Stop

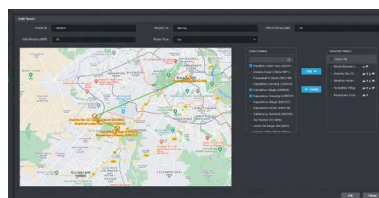
- Passenger guidance
- Advertisement broadcast

Value

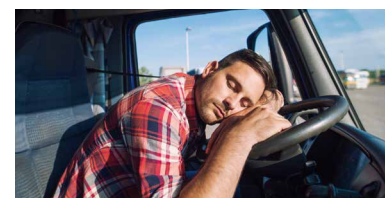
- Smoking while driving decreased by 89%, calling while driving decreased by 87%



- Accurate passenger flow helps optimize bus routes



- Alarm for overtime driving to reduce traffic accidents



Modular Design
Supports Partner Ecosystem

Solution Competence

Customer Centric
Provides Flexible Customization

Smarter Detection, Faster Response

Dahua Smart Defense Solution

Scenarios



Watch Tower
Border Fence



Checkpoint



Mobile Patrol



Barracks

Pain Points



Illegal Intrusion

Inability to warn off
approaching individuals in time



Low Efficiency

Unable to quickly verify people,
vehicles and objects at checkpoint



Harsh Environments

High hardware requirements
for the product

Highlights



Long Distance Intelligent Monitoring

- Up to 20km target detection
- Up to 5km radar detection for human targets
- Multi-AI applications for human, vehicle, boat and animal targets
- Convenient power supply and network transmission



Smarter Application for Checkpoint & Camp

- Quick and accurate verification of humans, vehicles and objects
- Target's trajectory playback
- AR high point global monitoring
- Real-time border crossing information and report statistics



Efficient Mobile Patrol

- 4G communication, real-time GPS
- Instant group talk and one-key alarm
- Mobile verification for human and vehicle targets
- One-case-one-file to avoid violent law enforcement



Unified Operation & Maintenance

- All resources in one map
- Multi-thermal applications with platform (e.g. Laser Range Finder linked with map, panoramic splicing, etc.)
- Command and dispatch
- Supports Big Data and Cloud storage

Value



Industry Level Design

Anti-Corrosion design,
bulletproof housing (optional),
and multiple modules (optional)



Precise Positioning

AI Detection Rate: ≥ 90
Laser Range Finder: $\pm 10m$
Radar Positioning Accuracy: $\leq 10m$



Enhanced Patrol Efficiency

From human to technological
defense, patrol units can be
reduced by up to 90%



Reduced Infrastructure Cost

Saves the number of watch tower personnel
through long-distance monitoring and
transmission (at least \$10,000 for a single
set) and greatly reduces infrastructure costs



Modular Design
Supports Partner Ecosystem



Solution Competence



Customer Centric
Provides Flexible Customization

* Design and specifications are subject to change without notice.

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