



SMART TRAFFIC SAFE TRANSIT
INTELLIGENT TRAFFIC SYSTEMS

WITH HIKVISION AS YOUR INTEGRATION PARTNER, YOU WILL STAND ON A SOLID FOUNDATION.

RAPID GROWTH

Hikvision is the world's leading supplier of video surveillance products and solutions, featuring the industry's strongest R&D workforce and state-of-the-art manufacturing facilities. Since 2001, Hikvision has grown from being a single-product supplier to a complete solution provider to a global market leader. Now, Hikvision has established one of the most extensive marketing networks in the industry, comprising 33 overseas regional subsidiaries throughout the world, ensuring quick responses to the needs of customers, users and partners.



FUTURE INNOVATION

Hikvision's Research Institute conducts innovative research and development to keep us at the forefront of technology.

- Research topics: Perceptive Technology, Intelligent Analysis Technology, Big Data and Cloud Storage Technology, and Multimedia Technology.
- The largest R&D team in Artificial Intelligence in the security industry.
- Sophisticated experience of video target detection, image segmentation, video structuring and video retrieval.
- Ranked No.1 in Scene Classification at ImageNet 2016 challenge and ranked top in the MOT Challenge Evaluation.
- Introduced the AI Cloud structure that combines cloud and edge computing



7-8%
Of annual revenue
invested in R&D



Research Institutes
• Hangzhou, China
• Silicon Valley, California, US
• Shanghai, China



7 R&D Centers
• Montreal, Canada
• London, UK
• Hangzhou, Wuhan, Shanghai, Xi'an, Chengdu in China



The largest R&D team in AI
in the security industry



• 770+ Copyrights
(170+ increase from 2017)
• 1,900+ Patents
(600+ increase from 2017)

TECHNOLOGY PARTNER PROGRAM BUILD WIN-WIN SOLUTIONS WITH HIKVISION

Hikvision continues to build close partnerships with distributors, system integrators and installers, as well as third-party technology partners. Today, Hikvision has over 500 technology partners globally. With the introduction of AI Cloud, Hikvision will join hands with all partners to build a powerful AI ecosystem together.

When joining this partner program, you will enjoy access to a wealth of technical and commercial resources, and we ensure that your solution enjoys strategic marketing through our communication channels. You will also get instant access to our entire sales organization. A vital part of our program is the streamlined online communication with our technical teams as well as the tools to plan the go-to-market activities.



NEW COOPERATIVE BUSINESS MODEL

- HEOP – Hikvision Embedded Open Platform
- Online License Activation

GLOBAL TECHNOLOGY PARTNER PORTAL

- Value Sharing Platforms
- High Quality Integration Service



PARTNER PORTAL A VALUE-SHARING PLATFORM

We want to share our success with you and to see your business ventures succeed in every way possible. As a certified Partner with Hikvision, our marketing materials and other assets will be available to you. The “Partner Portal” is just one of the ways we demonstrate how much we value each and every partnership.

Authorized users can access the Partner Portal online, anytime, for all kinds of helpful information. It’s easy to do, and you will find everything you need to help you get to the next step. When you need us, the Partner Portal is the doorway to support and to new opportunities for you!



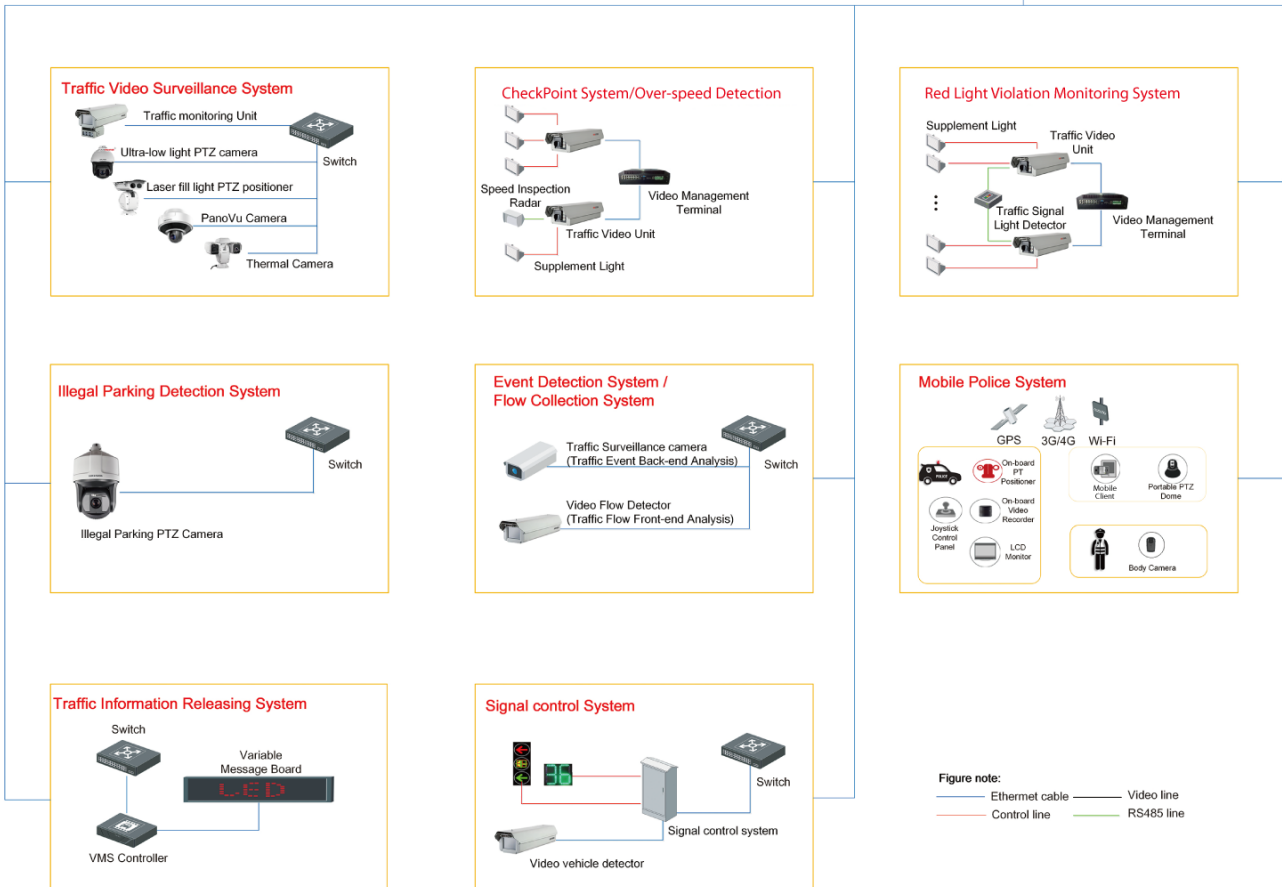
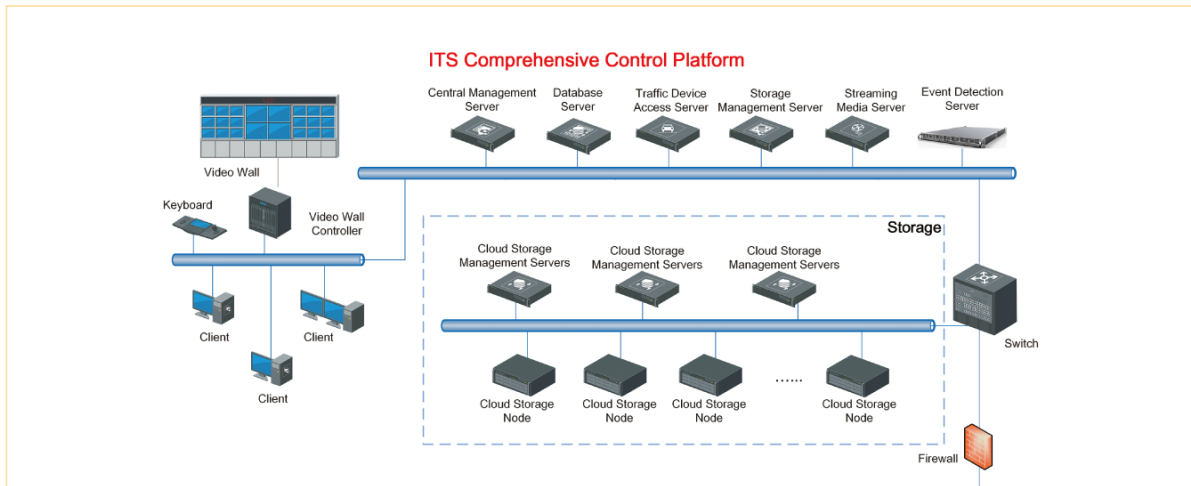




Hikvision is committed to providing complete and innovative solutions in Intelligent Traffic Systems (ITS). The latest solution from Hikvision Smart IP Solutions, the Intelligent Traffic System, includes dedicated, high-performance cameras for event capture, reliable embedded video terminals for event recording, and a centralized video management platform – perfectly unifying all the ITS devices and delivering service-extensible applications.

SOLUTION ARCHITECTURE

From an illegal parking detection system to a mobile police security system, or even integrated into a comprehensive Smart City control platform, Hikvision's Intelligent traffic solution will have you covered. From front to back, you can trust Hikvision products for industry-leading stability, reliability, and performance.



ITS SUBSYSTEMS

One comprehensive solution can be divided into discrete, manageable subsystems for precise security. Hikvision's ITS provides everything necessary for the smartest and most effective surveillance.



CONTAINER CODE MANAGEMENT SYSTEM



TRAFFIC INCIDENT DETECTION SYSTEM



INTERSECTION VIOLATION

- Red light violation detection
- Wrong-way driving detection
- Directional deviation detection
- Line-crossing violation detection



TRAFFIC FLOW COLLECTION

- Vehicle counting



ILLEGAL PARKING

- Illegal parking detection and capture



CHECKPOINT

- Vehicle capture
- Speeding detection



TRAFFIC MANAGEMENT SIGNAL CONTROL SYSTEM



Mobile Enforcement

- Police vehicle mobile monitoring
- Temporary monitoring
- Wearable monitoring



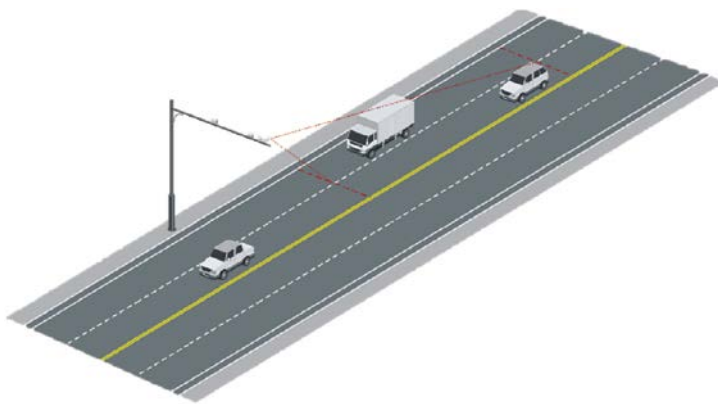
CHECKPOINTS

In the intelligent traffic solution, checkpoints provide key data on traffic flow and violations. These flexible tools create an intelligent network that weaves the whole roadmap together for maximum insight and administration of motorways.

VEHICLE CAPTURE

Whenever a vehicle passes through an ITS-equipped checkpoint, the system captures a photo and automatically links significant data – including license number and speed value.

- Captures vehicle images and recognizes plate numbers.
- Displays related info such as the date, time, plate number, etc.
- View real-time HD video at a low bitrate to get traffic information.
- Review video files to help Police track down persons of interest.



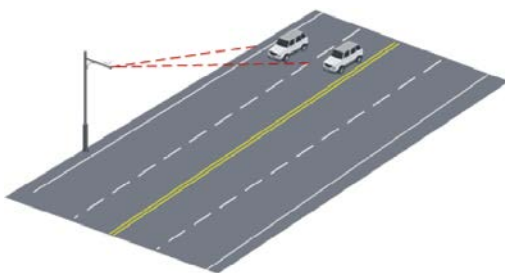
High resolution GMOS Traffic cameras can accurately capture speeding vehicles.



Various LED or strobe lights ensure clear images in nighttime monitoring.

SPEED MEASUREMENT

Speeds can be captured by radar or by segmenting road sections. High-accuracy radar featuring continuous capture, reliably records speeding vehicles. A double-checkpoint segmentation system provides performance superior to a single-checkpoint setup.



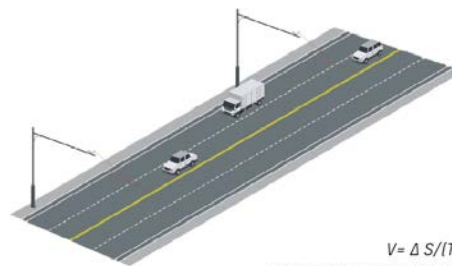
By Radar

High Accuracy Radar:

Narrow wave, convergent, covers single lane only, no ambiguity

Continuous Capture:

High frequency supplemental light can recharge quickly, enabling continuous capture of several vehicles.



$$V = \Delta S / (T2 - T1)$$

Calculated by terminal servers

By Segment

Operating two checkpoints prevents the failures of a single-point capturing a speeding driver



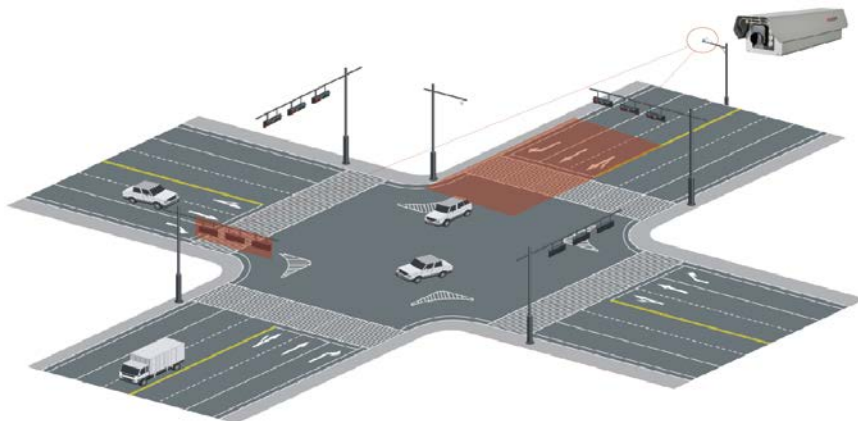
- Vehicle information recording
- Forensic snapshot
- Real-time analysis for vehicle violations
- Active alarm for vehicle control
- Front-end backup storage
- Transmission resuming
- Radar captures speeds with related vehicle video
- Detects speeding vehicles at checkpoints by radar
- Detects speeding vehicles via side-mounted radar

The following functions require adapting region-specific standards:

- Traffic flow / count
- Automatically filter out captures when two or more vehicles are detected
- Speeding vehicle detect by segment
- Structured information extraction from vehicle number plate

INTERSECTION VIOLATIONS

Intersections, where collisions occur, are the most critical applications for intelligent traffic management. Find the most effective tools here in our complete solution package.



- Vehicle information record
- Red-light violation detection and capture
- Other traffic violations include wrong-way driving, direction deviations, prohibited lane changes, crossing lines, etc.
- Traffic flow and counting
- Real-time analysis for vehicle violations
- Active alarms for vehicle control
- Front-end backup storage
- Automatic network transmission resuming

The following functions require adapting region-specific standards:

Structured information extraction from vehicle number plate



RED LIGHT VIOLATION

Red light violation detection:

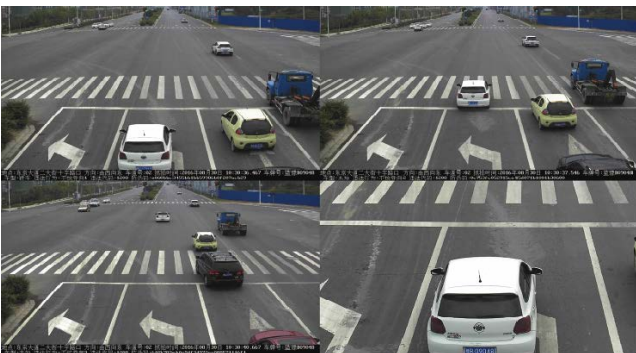
A traffic video unit captures three images of a vehicle crossing an intersection against a red light and produces data about when, where, vehicle plate number, and a red light violation. The three images and a close-up are combined into a single picture.



REVERSE DRIVING

Reverse driving detection:

A traffic video unit captures three images of a vehicle which has driven in the wrong direction and produces data about when and where it occurred, vehicle plate number, and a wrong-way driving violation. The three images and a close-up are combined into a single picture.



DRIVING AGAINST GUIDANCE

Driving against directional marking detection:

A traffic video unit captures three images of a vehicle which has driven in a direction against the direction markers and produces data about when and where it occurred, vehicle plate number, and a directional deviation. The three images and a close-up are combined into a single picture.



LANE CHANGE

Lane change detection:

A traffic video unit captures three images of a vehicle which has driven in a direction against the direction markers and produces data about when and where it occurred, vehicle plate number, and a line-crossing violation. The three images and a close-up are combined into a single picture.

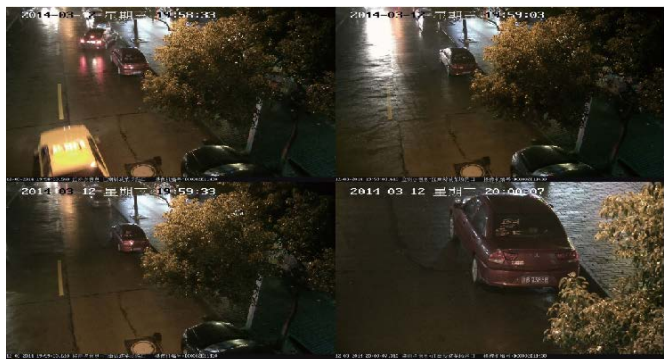
ILLEGAL PARKING DETECTION



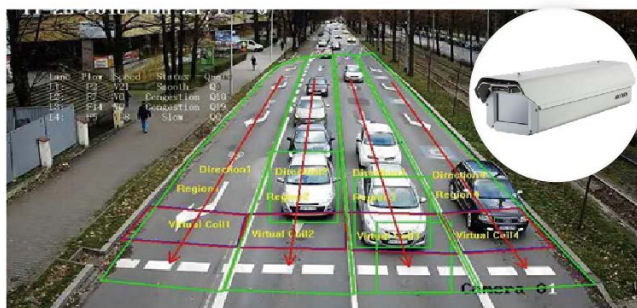
- Illegal parking detection and capture
- Multiple target processing
- Multi scene quick polling
- Transmission resuming
- Long detection distance with 36x optical zoom

The following functions require adapting region-specific standards:
Structured information extraction from vehicle number plate

Illegal Parking Detection:
One traffic speed dome captures three images of a vehicle where parking is not allowed, or parking overtime, and produces data about when and where it occurred, vehicle plate number, and a parking violation. The three images and a close-up are combined into a single picture.



TRAFFIC FLOW COLLECTION

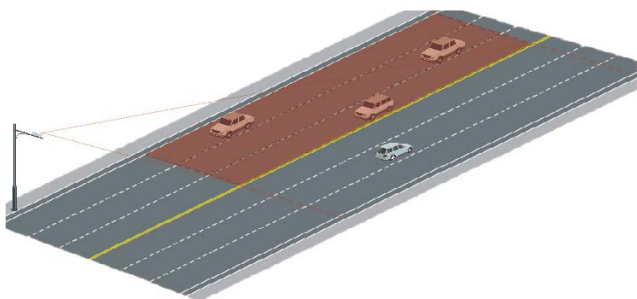


The Traffic Control system reports traffic flow, processes original data, and displays traffic status to the public – ultimately relieving traffic congestions.

- Vehicle Counting

The following functions require adapting region-specific standards:

- Average speed of vehicle
- Length of queue
- Type of vehicle (2 types in baseline)
- Place and time
- Distance between two adjacent vehicles
- Interval between two adjacent vehicles
- 3 levels of traffic jam: clear, slow, or jammed
- Real-time traffic data output



MOBILE ENFORCEMENT

When you need a system that moves, Hikvision moves with you. The mobile subsystem has been field-tested and proven in critical, on-the-ground applications.

POLICE VEHICLE MOBILE MONITORING

Extreme weather can cause major traffic disasters. Peaceful public demonstrations can turn into unlawful events. Earthquakes, floods, and lightning storms can interrupt power and water supplies. The unpredictability of these incidents requires civic authority personnel to be mobile, nimble, and always ready to go. And the equipment has to be ready, too. Turn enforcement vehicles into temporary mobile monitoring stations and move your gear to where it's most needed with our on-board systems.



An All-in-one Surveillance System

Turn enforcement vehicles into temporary mobile monitoring stations.

All-in-one Surveillance Station Instant HD-TVI Video Robust On-Board Recording



On-Board PTZ Positioner



On-Board Video Recorder



LED Monitor Joystick Control Panel

TEMPORARY MONITORING

When permanent surveillance installations are not possible, mobile enforcement solutions have to fill in the gap. On the roads, at the public squares, in rural areas – wherever you need surveillance equipment to go, Hikvision's products will go.



Magnetic or Tripod Mount

Built-in Battery with Extended Life

Easy Wi-Fi Connection for Operation



1080p Network Portable IR Speed Dome
DS-MH6171I

* ANPR function requires customization for local applicability.



Easy Wi-Fi Connection

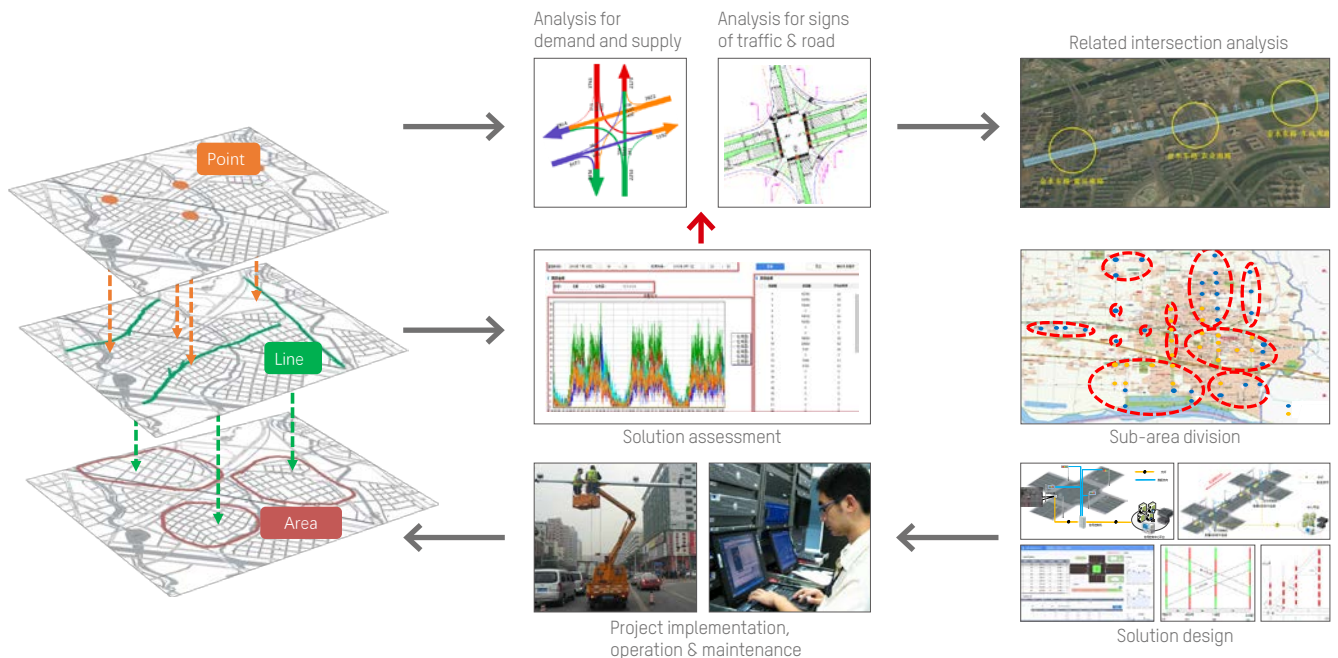
WEARABLE MONITORING

Rugged, wearable body cameras record activities of citizens and civil authorities as they happen. Their advanced technology, portability, and ease-of-use make them extremely effective companions for law enforcement. Equipped with GPS locators, you'll know where the emergency exists as it happens. These cameras build forensic evidence with safely stored data, and play back video footage clearly and accurately. Protect people and peacekeepers with wearable video recording devices.

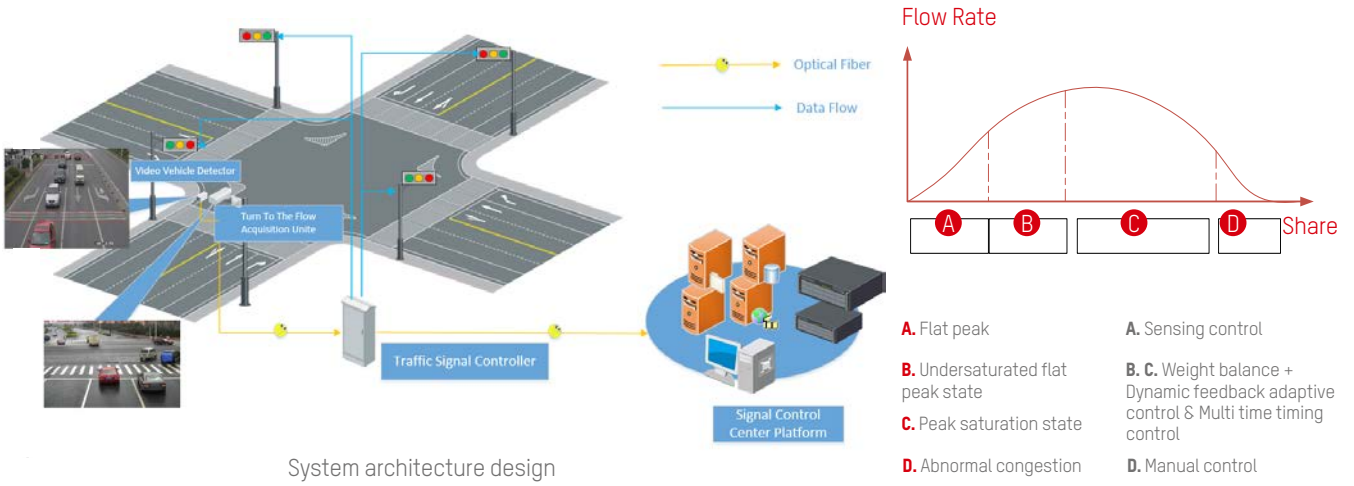
 <p>Wearable devices capture incidents promptly for forensic evidence or establish communication with security centers for post-event handling.</p>	 <p>After receiving an alarm, security centers can auto-position an incident location and dispatch the nearest team for support.</p>	 <p>Police personnel can take immediate action at the incident location. The on-board monitoring system ensures accountability regarding enforcement and abuse.</p>	 <p>Body Camera <ul style="list-style-type: none"> • DS-MH2111/32G(Wi-Fi) • DS-MH2111/32G/GLF (4G/Wi-Fi) </p> <p>Body Camera <ul style="list-style-type: none"> • DS-MH2211/32G/64G (Wi-Fi) <i>*Device continues operates when Changing battery</i> </p> <p>Body Camera Dock Station <ul style="list-style-type: none"> • DS-MH4172I </p>
<p>PORTABILITY</p>	<p>EXTENSIBILITY</p>	<p>OPERABILITY</p>	

TRAFFIC MANAGEMENT SIGNAL CONTROL SYSTEM

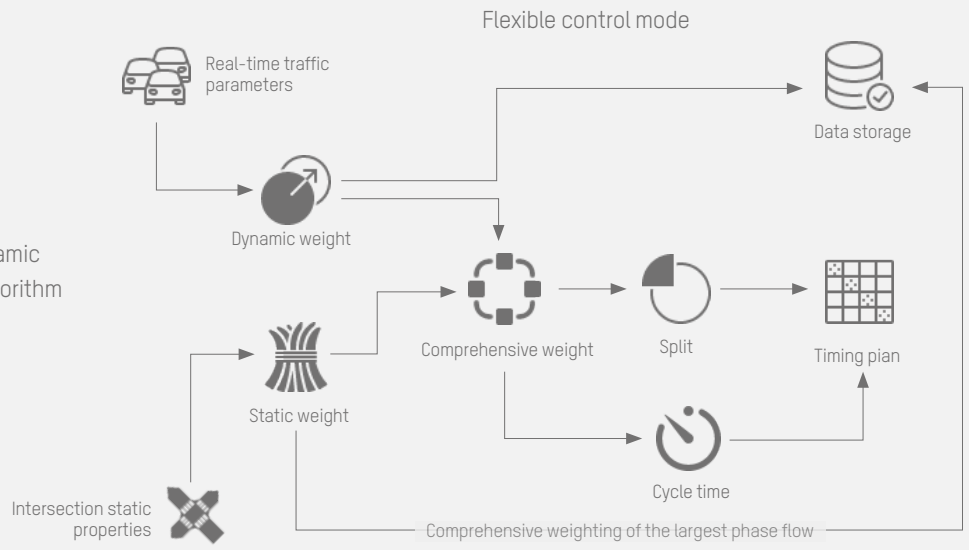
CONSTRUCTION SOLUTION OF SIGNAL CONTROL SYSTEM



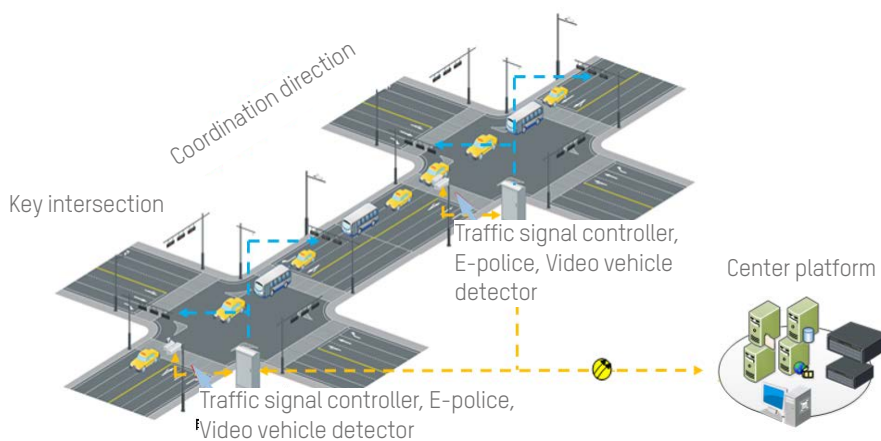
SINGLE POINT CONTROL: MULTI-MODE SOLUTION



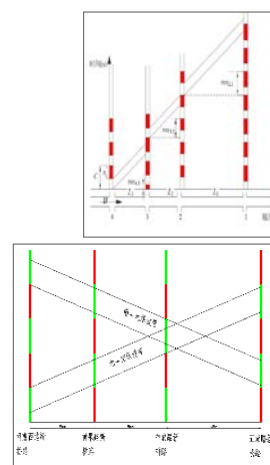
Weight balance + Dynamic feedback adaptive algorithm



MAIN ROAD CONTROL: MULTI-SCENE SOLUTION



System architecture design



Red wave zone & Green wave zone

MAIN ROAD COORDINATION CONTROL	APPLICABLE SCENE	SOLUTION PURPOSE
One-way green wave	Spacing should not be too large (Recommended less than 1000 meters)	One-way traffic diversion
	Traffic running stability	
	One-way traffic is large and stable	
	The special control requirements	
Green tidal wave	Obvious tidal phenomenon on road, special green waves in one direction	Heavy direction traffic diversion
Bidirectional green wave	Spacing distance is relatively close or seemed like a certain regularity	Bidirectional traffic diversion
	Bidirectional traffic stability	
Dynamic green wave	Big traffic flow fluctuation	According to the real-time traffic flow regulation main road traffic running
	Video vehicle detector and other equipment can be installed at intersection with sensing linkage control	
Red wave zone	Spacing distance should not be too long (Recommended distance is less than 1000 meters)	Relieve traffic pressure of the key intersection, cut traffic levels during rush hours.
	There are bottlenecks on intersections	

REGIONAL CONTROL: DEMAND COORDINATION & CONTROL

Application ideas:

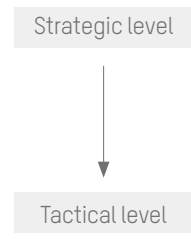
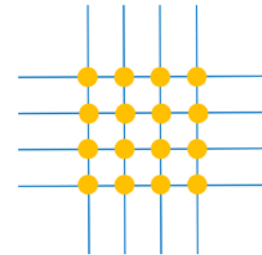
To use regional demand control strategy, limit external traffic flow to ensure smooth traffic, balance the traffic flow and relieve regional internal traffic pressure.

Technical principle:

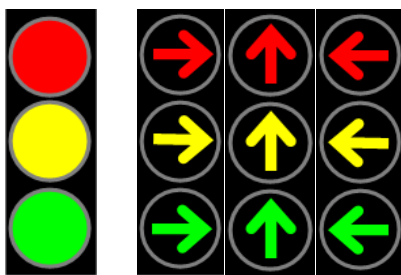
- By analyzing the detector in the area to determine the congestion status, when the system reaches the congestion status, the area coordination control is triggered.
- Intercepting and diverting the way, adjust the direction of in and out of the timing plan, balanced internal traffic, congestion state rapid relief area.

Principle of division:

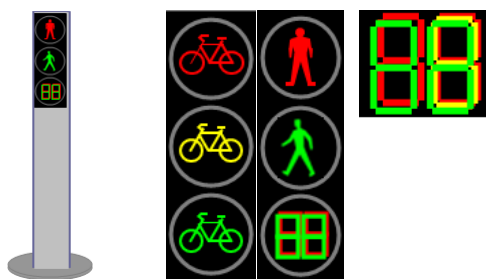
- Natural administrative region, geographical relationship: natural or physical barrier
- Relevance of intersections
 - » Distance principle: Determine the dispersed traffic and degree of random arrival.
 - » Cycle principle: The cycle is equal or close to .
 - » Traffic flow principle: The larger traffic flow needs the more demands to coordination & control and the better effect.



TRAFFIC LIGHT : LED



Indicating LED to vehicle

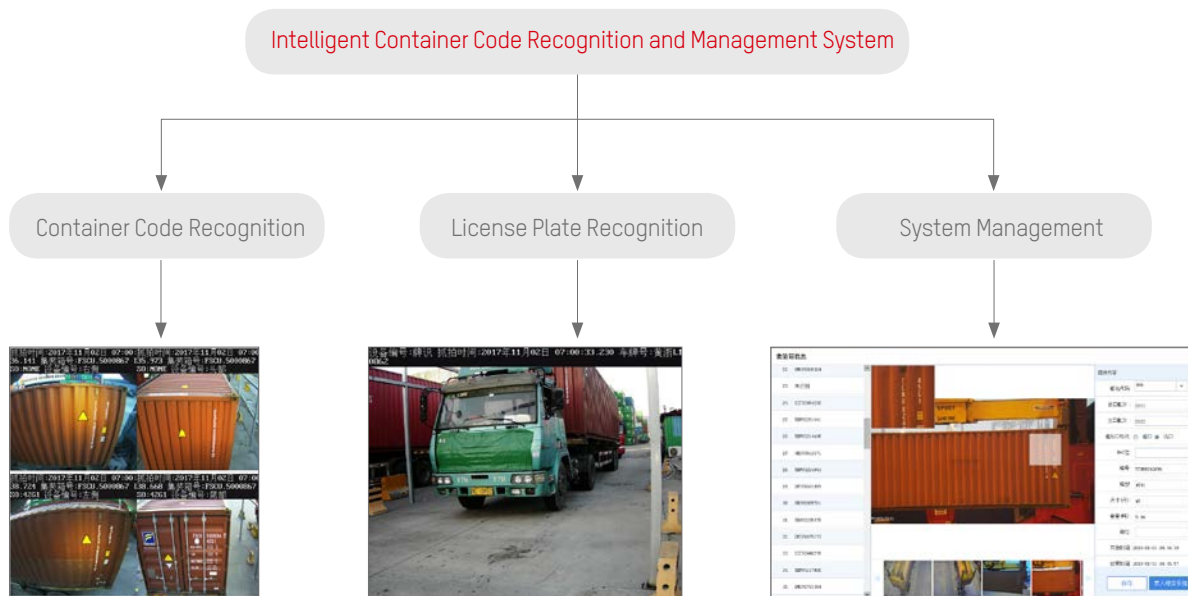


Pedestrian LED

Advantages

- High-end advanced LED indicators
- Better visual angle, high uniformity of luminance
- Standard chromatography & excellent visibility
- Rapid response to control & reduce traffic accidents
- Less power consumption, longer working life
- Less heat radiation, avoid scalding risks during maintenance
- Modularized design, easy installation and operation

CONTAINER CODE RECOGNITION

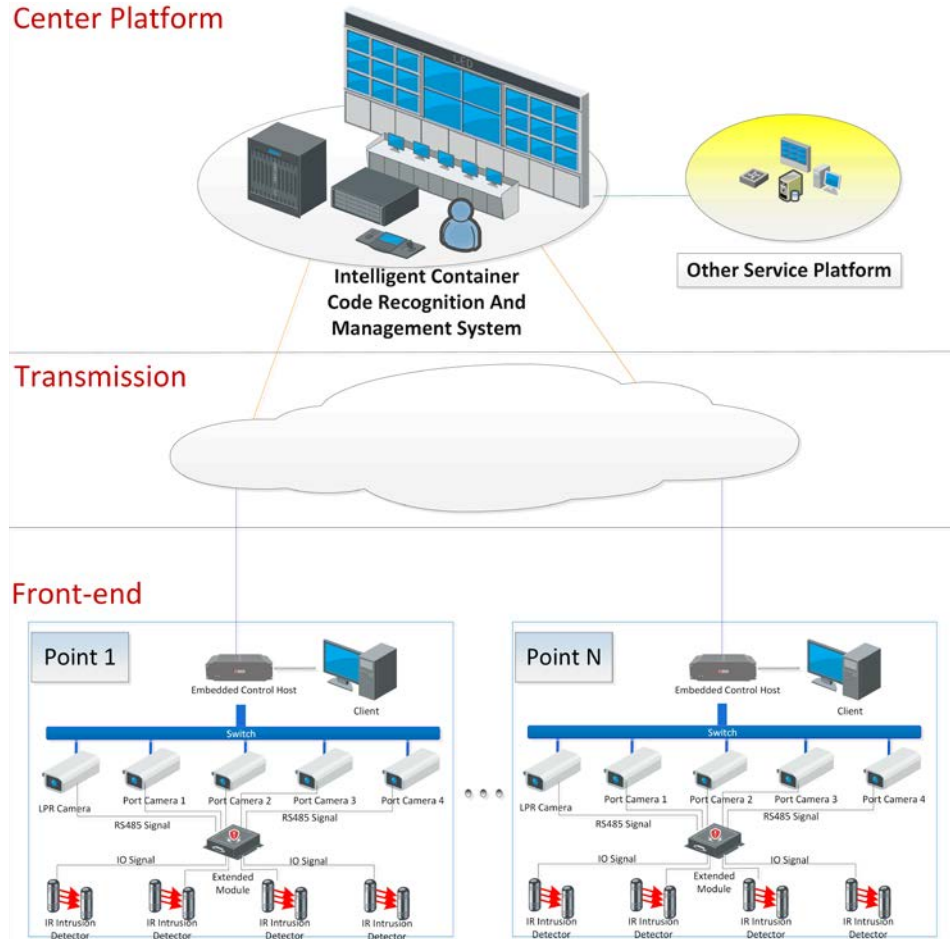


- Provide matching box number plate data quickly and with high accuracy
- Standard external interface protocol and business platform interaction
- Abundant hardware interface docking weighing, RF card and other equipment

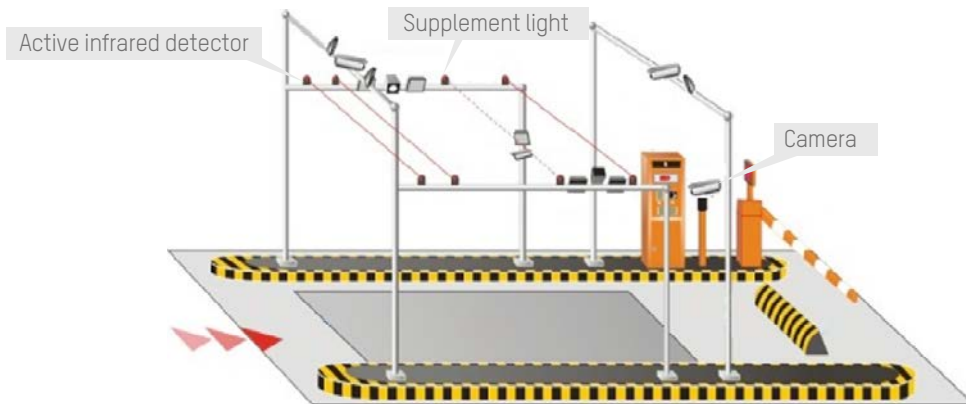
Business functions :
Intelligent tally for the above scenario, intelligent operation management application based on data acquisition from the front-end devices.



NETWORK TOPOLOGY



SITE LAYOUT



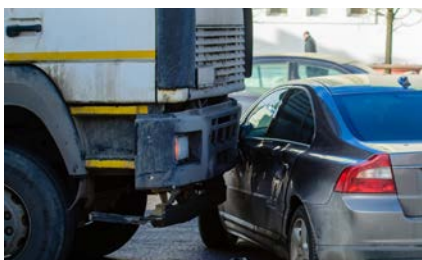
TRAFFIC INCIDENT DETECTION SYSTEM

BACKGROUND



Guarantee the safety of highway traffic

Detect potential safety risks, such as littering on highway or illegal parking, to avoid traffic accidents.



Instant alarm for traffic accident

In the event of a traffic accident, instant alarm and report can help anyone in need to receive medical attention or police assistance in a timely manner.

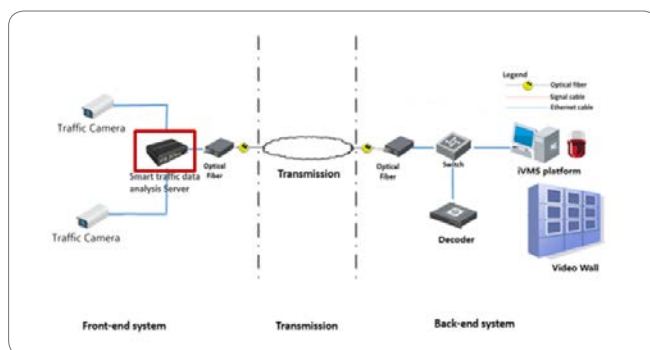
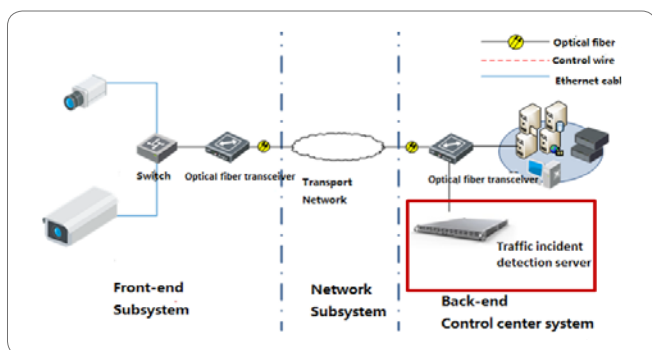


Reduce labor cost

Conventional road surveillance usually requires operators to monitor multiple channels simultaneously while stay alert for any detailed incidents that shown on the screens. This tedious and error-prone way of monitoring can now be updated to a more efficient and effective method.

NETWORK TOPOLOGY

- Efficient and effective road monitoring
- Timely response to traffic incidents
- Higher level of automation replaces the old model of labor-intensive work



APPLICATION SCENARIOS



Illegal Parking

Panoramic surveillance / Small target detection (20*20 pixels)



Congestion Detection

150m traffic jam recognition with adjustable detection sensitivity level. (48*48 pixels)



Pedestrian Detection

Large area coverage / small target detection (48*48 pixels)



Littering Detection

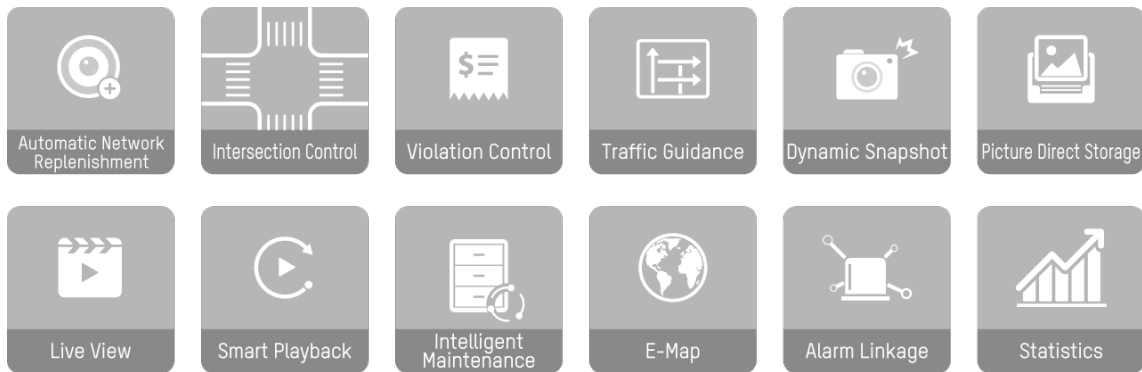
Automatically detect any littering behaviors and trigger alarms. (32*32pixels)

SOFTWARE PLATFORM

Hikvision's iVMS systems are known throughout the security industry for their power, compatibility, and reliability. This bespoke video management system is no different. Intuitive and effective management of a complex web of traffic in any locale is now at your fingertips.

iVMS-8600

iVMS-8600 ITS platform was designed specifically for the development of an integrated image-processing application platform for the traffic industry. The software integrates vehicle checkpoints, violation detections, video surveillance, illegal parking detection, intersection control, data integration, and more. Gain mastery of the intelligent traffic image application with the iVMS-8600.

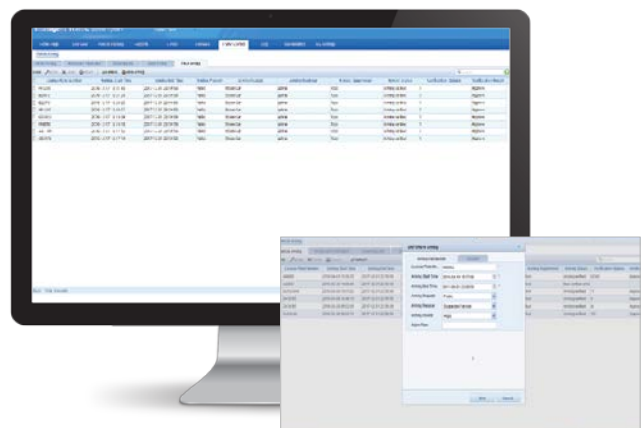


VEHICLE MONITORING & SEARCH

The iVMS-8600 Platform monitors, reports, and searches vehicle information recorded at checkpoint subsystems, intersection violation subsystems, and illegal parking subsystems. This information includes images, plate numbers, time, location, speed, and violation type.

TRAFFIC CONTROL

The traffic control feature provides an alarm function when identifying vehicles by plate number. When the vehicle appears, the system will immediately notify traffic police.



VIOLATION SEARCH

Hikvision's ITS VMS platform records and reports violation types, including illegal parking, running red light, reverse driving, illegal lane changes, driving across solid lines, speeding, and more.



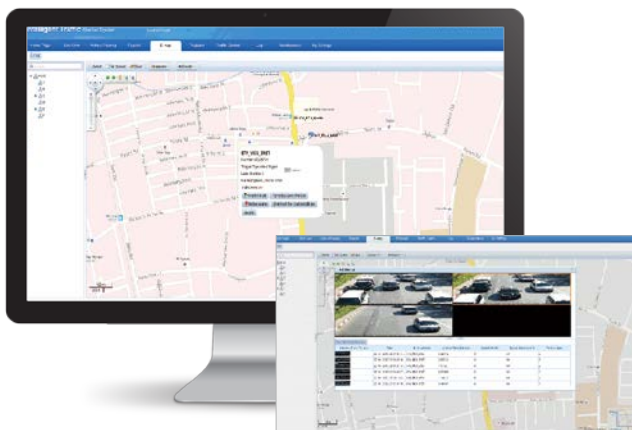
VIDEO SURVEILLANCE

This system not only reports traffic status on roads and at intersections, but can also give the status of any vehicle as it passes every camera in the city. Users can easily search and play back image and video.



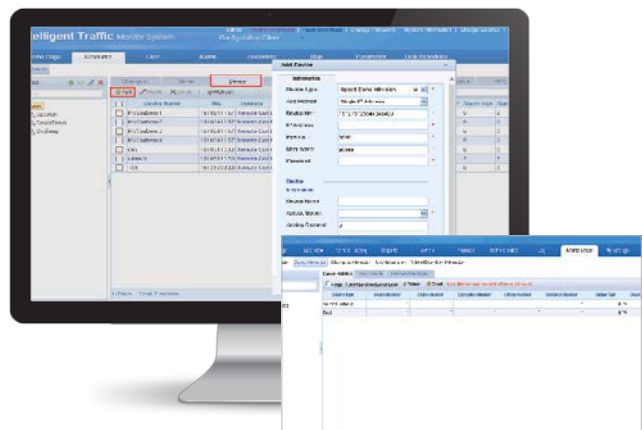
E-Map

This platform easily displays surveillance points and locations at which violation detection subsystems, illegal parking detection subsystems, and checkpoints are installed. Vehicles can be tracked as they pass each surveillance point.

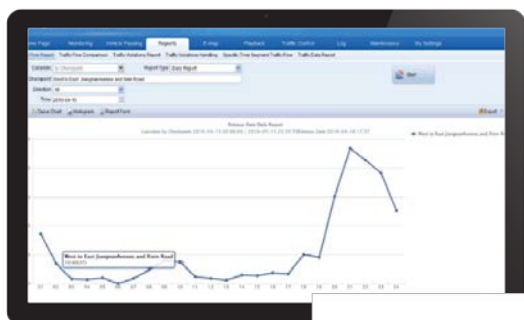


SMART MAINTENANCE

The iVMS-8600 can monitor the status of devices including IP cameras, terminals, servers, DVRs, and NVRs, and will trigger an alarm if the device goes offline.

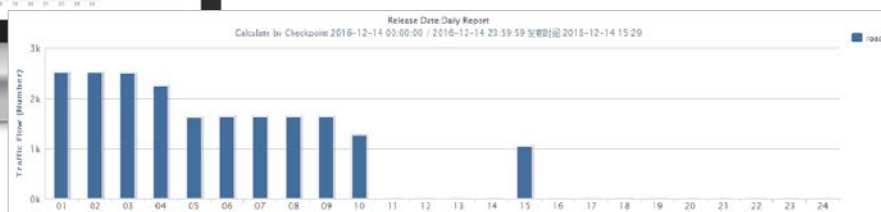


STATISTICAL ANALYSIS REPORT



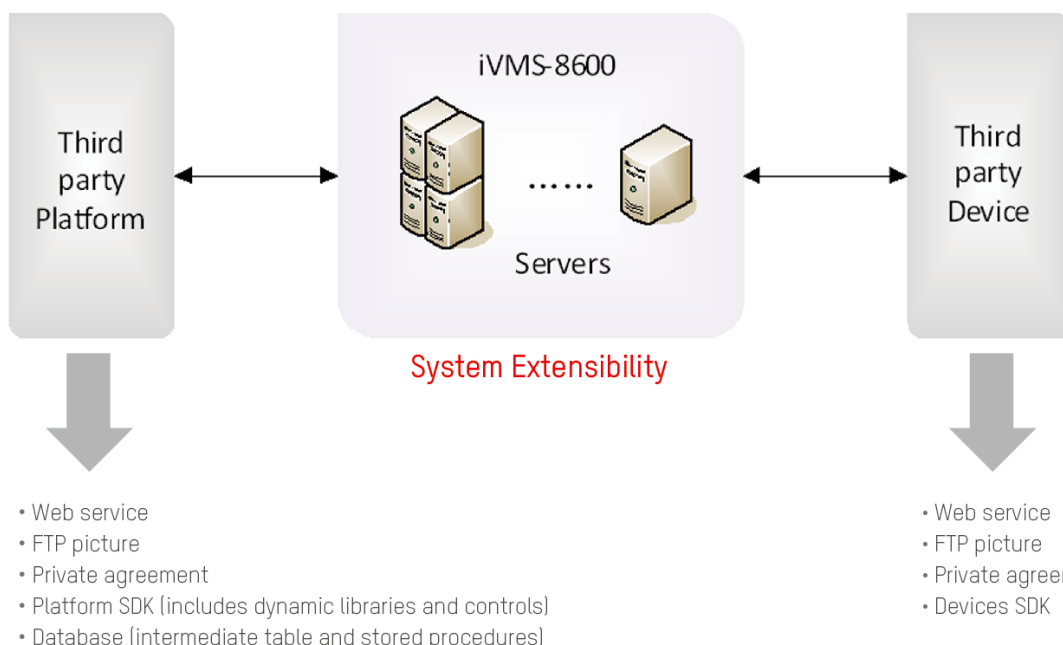
Reports are generated from data collected at checkpoint, violation detection, illegal parking, and ANPR traffic flow collection systems.

Reports can be scheduled daily, weekly, monthly, quarterly, and annually, and can be sent by email to key recipients. Reports can also be printed with added report headers and automatic pagination.



SYSTEM EXTENSIBILITY

Easily add third-party components and integrate them with Hikvision's iVMS-8600. This platform was designed for wide compatibility with today's complex applications.




CONTROL CENTER

Every major installation needs a reliable and comprehensive center for management and oversight. Below, you will find Hikvision's innovative products compose command centers that are powerful, cost-effective, and ready to install. A command center that makes sense – by Hikvision.

STORAGE AND MONITORING

With capabilities that go above and beyond, Hikvision's components bring your control center up to date. Get the tools you need to do the job you need – nothing less.

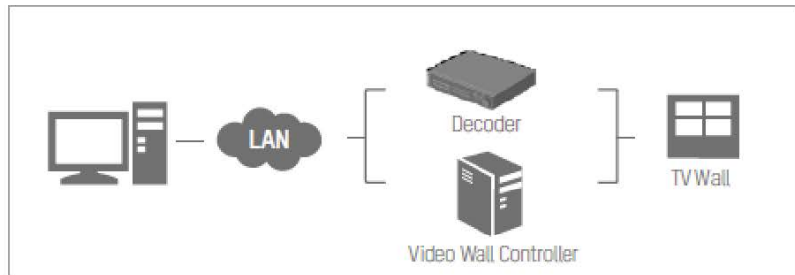


 Storage Server

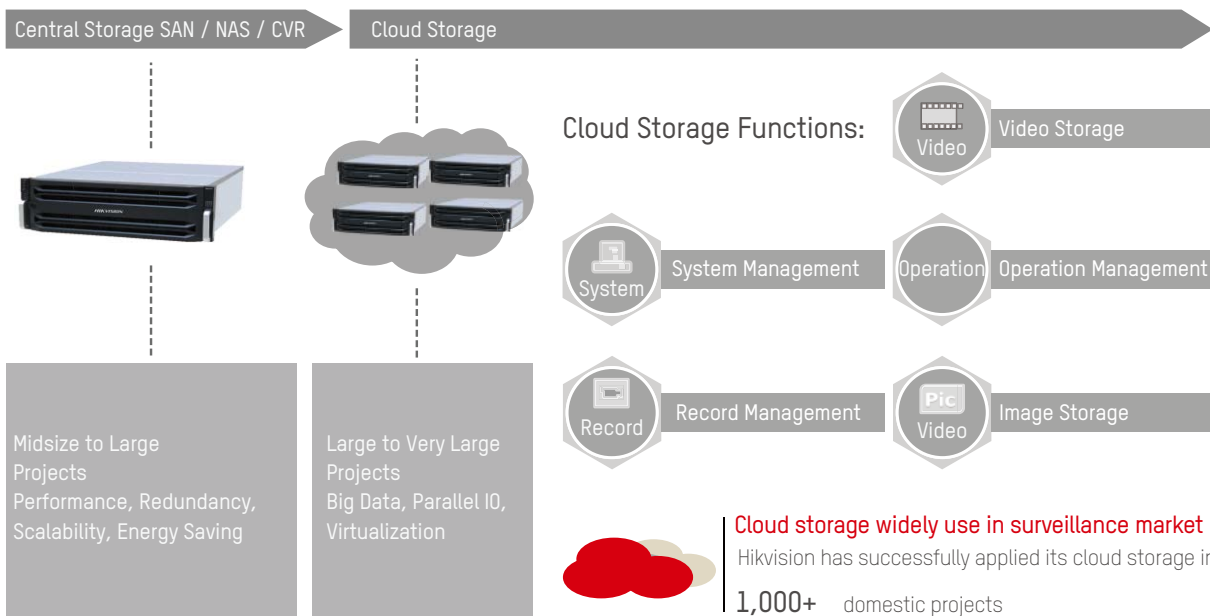
 Modularized design and hot plugging for easy maintenance

 Double controller & power module for data safety

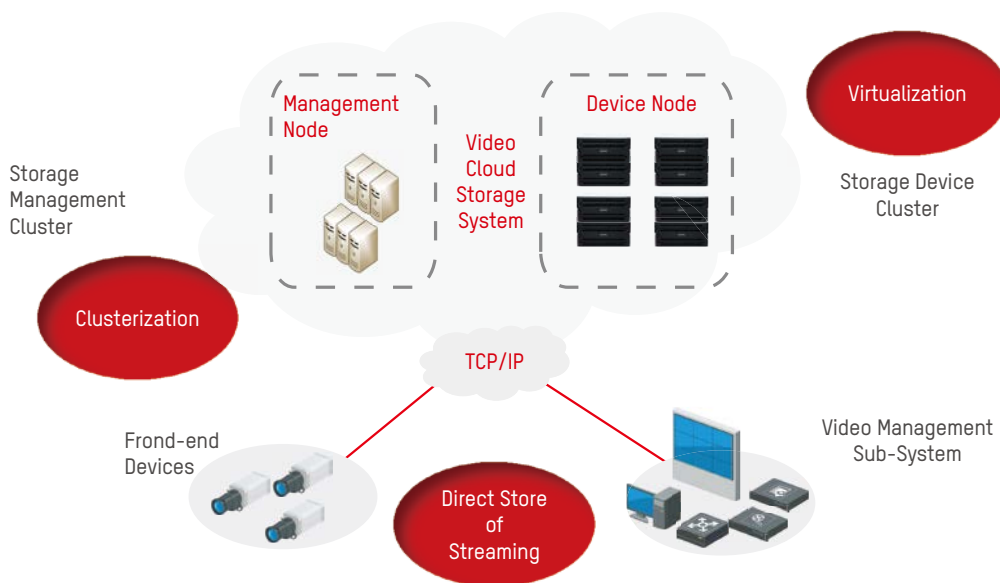
 Supports CVR mode for better return on investment



DATA STORAGE



CLOUD STORAGE STRUCTURE



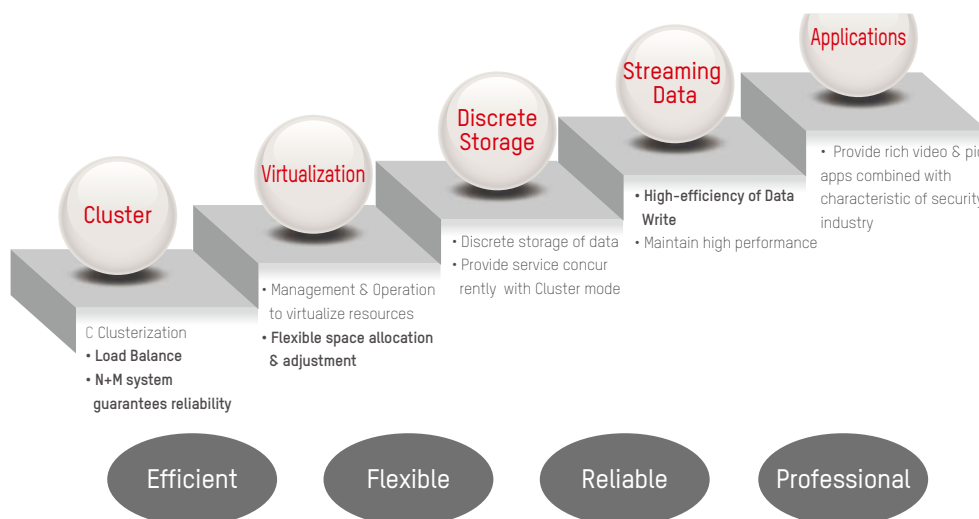
HIKVISION CLOUD STORAGE HIGHLIGHT

General cloud storage:

Cluster, virtualization and distributed storage;

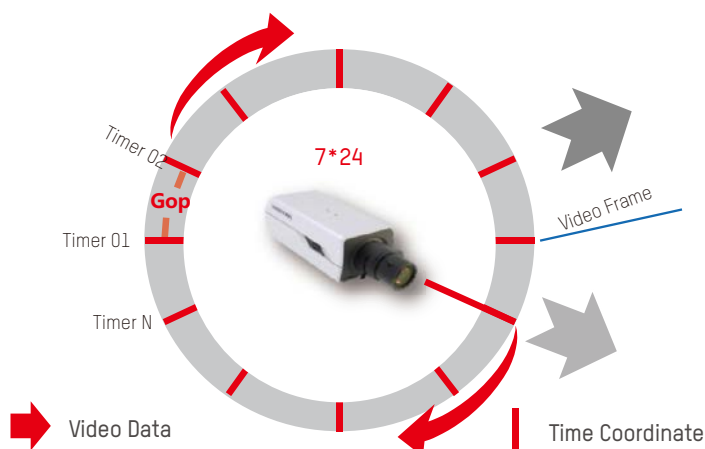
Hikvision Cloud storage:

Cluster, virtualization and distributed storage, Streaming data, CCTV integrated applications.



STREAMING STORAGE FOR HIGHER CCTV EFFICIENCY

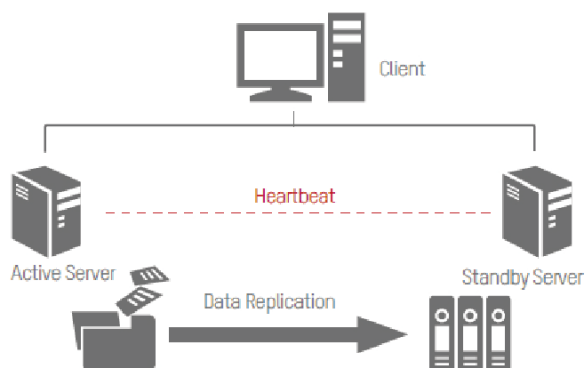
Video data reads incessantly in the storage system based on the streaming character.



- Accurate playback by customer time
- Optimize storage model and improve storage efficiency
- No file fragments of streaming storage
- Data reading with quick response

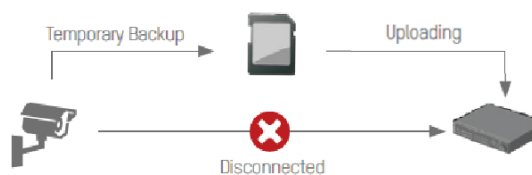
SYSTEM ROBUSTNESS

With active & standby servers, the "heartbeat" function automatically backs up critical data if the network ever goes down. Local SD cards mounted in the camera provide radical system reliability.



SERVER REDUNDANCY DESIGN

- Active & standby servers
- "Heartbeat" function automatically backs up users' information if one server is interrupted
- Ensures users' live view and playback in case of failover



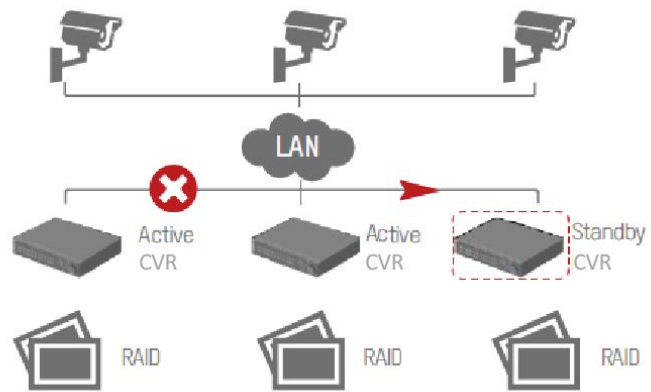
AUTOMATIC NETWORK REPLENISHMENT

- Auto backup if network connection is interrupted
- Data moves from SD card to back-end device while network connection is restored
- We recommend using Hikvision brand Micro SD cards for ANR storage

RAID & N+1 FAILOVER

• **Single-Spot Storage Backup:** Multi-RAID supported by embedded NVR and Storage Server.

• **Multi-Spot Storage Backup:** When any active CVR is out of service, the standby CVR can take over recording automatically.



VIDEO-WALL DISPLAY UNIT LCD / DLP / LED

- Rich Color
- HD Display

- Ultra-Low Power Consumption
- Ultra-Long Life

- Intelligent Fan
- Environmentally Friendly and Quiet

- 3D Noise Reduction
- Clear, Sharp Images

LCD:
DS-2046NL-B, DS-2046NL-C, DS-2046NH-C, DS-2055NL-B, DS-2055NH-B

DLP:
DS-D1050EH, DS-D1060EH, DS-D1067EH, DS-D1080EH, DS-D1070EF

LED:
DS-D4012FI-EL, DS-D4018FI

- Ultra-High Brightness
- Ultra-Wide Visual Angle

- Ultra-Narrow Seam
- Intelligent Splicing

CHECKPOINT



iDS-TCV300-A6I/1140/H1
Highly Performance ANPR
Camera

- 1/1.8" GMOS sensor
- 3MP resolution
- 2064*1544 real-time video for single lane monitoring
- Lens: 11-40mm
- Built-in ANPR algorithm
- USB & SD card slot interfaces
- I/O: 4/6, 3x RS485 1xRS232 interfaces
- Built-in LED light
- Vehicle type recognition
- Vehicle color recognition
- Vehicle brand recognition
- Seatbelt detection
- Phone call detection



iDS-TCV900-AI/25/H1
Highly Performance ANPR
Camera

- 1" GMOS sensor
- 9MP resolution
- 4096 × 2160 real-time video for 2-3 lanes monitoring
- Lens: 25mm
- Built-in ANPR algorithm
- USB & SD card slot interfaces
- I/O: 4/6, 3x RS485 1xRS232 interfaces
- Built-in LED light
- Vehicle type recognition
- Vehicle color recognition
- Vehicle brand recognition
- Seatbelt detection
- Phone call detection

INTERSECTION



iDS-TCE300-A6/1140/H1
Highly Performance ANPR
Camera

- 1/1.8" GMOS sensor
- 3MP resolution
- 2064*1544 real-time video for single lane monitoring
- Lens: 11-40mm
- Built-in ANPR algorithm
- USB & SD card slot interfaces
- I/O: 4/6, 3x RS485 1xRS232 interfaces
- Built-in LED light
- Red light running
- Wrong-way driving
- Driving on lane line
- illegal lane change
- Driving in wrong lane at intersection



iDS-TCE900-A/16/H1
Highly Performance ANPR
Camera

- 1" GMOS sensor
- 9MP resolution
- 4096 × 2160 real-time video for 2-3 lanes monitoring
- Lens: 25mm
- Built-in ANPR algorithm
- USB & SD card slot interfaces
- I/O: 4/6, 3x RS485 1xRS232 interfaces
- Built-in LED light
- Red light running
- Wrong-way driving
- Driving on lane line
- illegal lane change
- Driving in wrong lane at intersection

TRAFFIC FLOW COLLECTION



iDS-TCD200-A/1140
DeepInView Traffic Flow
Unit

- Hikvision Deep Learning Technology based
- 2MP 1/1.8" Progressive Scan CMOS HD Camera
- Up to 1920 × 1080 @ 30 fps for real-time output
- ROI and SVC are adopted with high compression ratio, flexible disposal and low bitrate
- Network lightning protection and anti-surge
- Support detection of traffic flow, average vehicle speed, distance between cars of vertical and horizontal, time & space occupancy, lane queue length, vehicle type, lane running state and congestion status



iDS-TCD203-A
Highly Performance Traffic
Camera

- 1/1.8" progressive scan CMOS
- Up to 1920 × 1080 @ 25fps resolution
- Up to 4 lanes coverage
- Detection Distance: 10m - 100m (Distance varies with installation height and lens type)
- Motorized zoom lens 8mm to 32mm
- Deep-learning algorithm
- H.265/H.264/MJPEG
- DC12V
- IP66

TRAFFIC SIGNAL CONTROL



DS-TSC300 series
Traffic Signal Controller

- Maximum 36-ch vehicular light and 8-ch pedestrian light control
- 9 slots, support 1 main board + 1 power board + 4 light control board + 1 yellow flash board + vehicle detection board/communication board
- Support OFF/yellow flash/all red/vehicle actuate mode
- 1 Manual Control Panel
- Support NTCIP protocol
- Support GPS



DS-TSC500 series
Traffic Signal Controller

- Maximum 108-ch traffic light control
- 10 slots, support 1 main board + 1 power board + 6 light control board + vehicle detection board
- Support OFF/yellow flash/all red/vehicle actuate mode
- 1 Manual Control Panel
- Support NTCIP protocol
- Support GPS

SMART SURVEILLANCE



iDS-TCM203-A
Highly Performance ANPR
Bullet Camera

- 2MP 1/1.8"CMOS
- 50HZ:1920*1080@50fps 60HZ:1920*1080@60fps
- Motorized zoom lens : 8mm-32mm
- Data Output: SDK or ISAPI
- Build-in ANPR engine, equipped with Deep-learning algorithm
- Vehicle type recognition(customized)
- Vehicle color recognition(customized)
- Support no-plate car capture
- Support car moving direction detection(customized)
- Support motorbike capture
- Dark-fighter
- IP66, IK10

ILLEGAL PARKING



iDS-2VS23* 1/1.9" CMOS
Traffic PTZ Camer

- Color: 0.002 Lux @(F1.5, AGC ON), B/W: 0.0002 Lux @(F1.5, AGCON), 0 Lux with IR
- 5.7-205mm, 36X optical zoom
- 2MP:50fps/60fps
- Tilt: -20°-90°; Pan speed: configurable, from 0.1°/s to 210°/s; preset speed: 280°/s
- Built-in ANPR algorithm
- Detection: illegally parking, wrong-way driving
- 120dB WDR, 3D DNR, HLC, BLC, Smart IR
- Up to 200 m IR distance
- Support H.265+/H.265 video compression5-F836

TRAFFIC INCIDENT DETECTION



iDS-TP40-16B
Smart Traffic Data Analysis
Server

- GPU architecture with deep-learning algorithm
- Up to 16-ch 2MP/3 MP HD cameras connection
- Multiple traffic incidents detection: Illegal parking, wrong-way driving, pedestrian, driving on the lane line, illegal lane change, objects dropped down, occupy emergency lane, congestion, vehicle type, lane traffic flow, roadblock, construction



iDS-TP40-04L
Smart Traffic Data Analysis
Server

- GPU architecture with deep-learning algorithm
- Up to 4-ch 2MP/3 MP HD cameras connection
- Multiple traffic incidents detection: Illegal parking, wrong-way driving, pedestrian, driving on the lane line, illegal lane change, objects dropped down, occupy emergency lane, congestion, vehicle type, lane traffic flow, roadblock, construction
- 1 T HDD for record and picture storage

SUPPLEMENTAL LIGHT



DS-TL2000A(I)-L1
Supplemental LED Light

- 16 LED lamp beads
- White LED or Infrared LED
- Effective distance: 16-25m
- Angle of light: 10°
- Trigger Mode: TTL level (Switch trigger optional)
- Coverage: 1 road lane



DS-TL2002A(I)
Supplemental LED Light

- 28 LED lamp beads
- White LED or Infrared LED
- Effective distance: 16-25m
- Angle of light: 10°
- Trigger Mode: TTL level (Switch trigger optional)
- Coverage: 1.5 road lane



DS-TL2002C(I)
Supplemental LED Light

- 28 LED lamp beads
- White LED or 850nm LED (Infrared)
- Effective distance: 16-25m
- Angle of light: 40°
- Trigger Mode: TTL level (Switch trigger optional)
- Coverage: 1.5 road lane



SL-1211-2(850nm)
Infrared Flash
Supplemental Light

- Single lane
- Compensated Effective Distance: 18 – 25 m
- Flash Frequency: Up to 6 times/second
- Recycle Time: < 67 ms
- Trigger Mode: TTL level and switch trigger
- Wavelength: 850 nm



SL-1211-2
White Flash
Supplemental Light

- Single lane
- Compensated Effective Distance: 16 – 25 m
- Flash Energy: 200J
- Flash Frequency: Up to 6 times/second
- Recycle Time: < 67 ms
- Trigger Mode: TTL level and switch trigger
- Optical Grating: Supported (Reducing light pollution effectively)
- IP65



CSR-IN(P)
High-precision Speed
Inspection Radar

- High-precision narrow band radar
- Velocity range: 10-250 km/h
- Measurement accuracy: -4-0 km/h
- Support vehicle front & rear triggering
- Support direction information and vehicle length information



CSR-IM
Multi-lane Speed
Inspection Radar

- Support multi-object detection, covering 1-3 road lanes
- Velocity range: 2-250 km/h
- Measurement accuracy: -4-0km/H
- Support vehicle front & rear triggering
- Support direction information



TLD-2016-6
Traffic Signal Light
Detector

- 16-ch signal light AC signal interface
- 6 RS485 output
- 1 DC 5V output
- 5 pin switch to set band rate, address and upload method
- 16-ch lights to show status



DS-TP50-12DT
Terminal Server

- Two BNC input interfaces, 2 BNC loop-out interfaces
- Four 3.5"/2.5" SATA HDD interfaces
- Eight 10/100M Ethernet interfaces
- Save recorded files on locked hard disk. The saved period is determined by stream bitrate and hard disk capacity.
- Text overlay and picture composition



iDS-TP40-16B
DeepInMind Traffic
Management Server

- Hikvision Deep Learning technology Based
- Support auto detecting 16-ch 3MP IP Camera Event Detection, Event Capture, Traffic Data Collection
- Event Detection Type: Traffic Jam, Parking, Over lane line, Turn Round, Reverse Driving, Pedestrian, Throw Object, Illegal Lane Change
- Traffic Data Collection Type: Traffic Flow, Speed, Spachead way, Time headway, Lane-time occupied rate, Lane-space occupied rate, Queuing Length, Traffic Traveling Status

MOBILE ENFORCEMENT



DS-MI9605-GA
Mobile Enforcement
System

- 1-ch 1080p network speed dome and 4-ch network camera.
- Pluggable dummy HDD for two 2.5-inch HDD/SSD, up to 2 TB for each HDD/SSD
- Power-off protection prevents key data from loss;
- Hard disk box with USB interface for recordings export;
- Specialized aviation plugs ensure signal stability;
- Manual controller for vehicle tracking.
- GPS
- 3G/4G/WIFI
- H.265



DS-MH6171I
Portable PTZ Dome

- 2 MP Full HD1080p high resolution
- 30X optical zoom, 12X digital zoom
- H.264+ optimized codec to reduce storage
- Dual SD card slots, up to 128 GB for each card
- Supports Wi-Fi, 3G, 4G wireless connection
- Interchangeable Lithium battery, up to 6-hour operating time
- Alarm I/O, RS232, RS485 interfaces
- Supports Bluetooth connection
- IP66 weather-proof protection
- Up to 195 feet (60m) IR range
- Powerful magnetic base for vehicle-roof mounting
- iVMS-4500 client for remote operation

BODY CAMERA



DS-MH2311
Body Camera

- Wi-Fi, GPS, 4G(optional)
- H.265/H.264
- 1080P@30fps, 720P@30fps
- 3300mAh removable battery
- 8 Hours Recording
- 32GB internal storage
- 2.4-inch LCD screen/G-sensor/IR
- IP67



- Wi-Fi, GPS, 4G(optional)
- H.265/H.264
- 1080P@30fps, 720P@30fps
- 3300mAh removable battery
- 8 Hours Recording
- 32GB internal storage
- 2.4-inch LCD screen/G-sensor/IR
- IP67



DS-MH2211
Body Camera

- Wi-Fi/GPS
- H.265(Customized)/H.264
- 1080P@30fps, 720P@30fps
- 5MP image capture
- 1650mAh removable battery
- Replace battery without shutdown
- 2-inch LCD screen/G-sensor/IR
- IP65



DS-MH4172I
Body Camera Dock Station

- OS: Window10 system
- External LCD screen for operation
- Docking port: 8 body cameras
- Storage: 2T/4T/8T(Optional)
- Indicator: power, data
- Interface: Wi-Fi /RJ45/USB/HDMI/VGA/Rs232/Audio

CONTROL CENTER



DS-A72024R
Cloud Storage Device

- Image and video mixed storage
- 4U (19-inch height)
- 24 HDD slots
- Recording Mode: Video (2 Mbps) + picture, 820-ch. recording + playback



DS-A81016S
CVR Network Storage

- Image and video mixed storage
- 3U (19-inch height)
- 16 HDD slots
- Recording Mode: Video (2 Mbps) + picture, 320-ch. recording + playback



DS-A908RE-B
CVR Network Storage

- Image and video mixed storage
- 3U (19-inch height)
- 8 HDD slots
- Recording Mode: Video (2 Mbps) + picture, 78-ch. recording + playback



**DS-6901/04/08/
10/12/16UDI**
Ultra-High Definition
Decoder

- Decoding Capacities:
 - 12 MP at 20 fps: 2 channels
 - 8 MP at 30 fps: 4 channels
 - 5 MP at 30 fps: 6 channels
 - 3 MP at 30 fps: 10 channels
 - 1080p at 30 fps: 16 channels
- Provides HDMI (adaptable to DVI-D) and BNC output interfaces
- Up to 4K (3840 x 2160 @ 30 Hz) via HDMI output interfaces (only for even interface)
- H.265+/H.265, H.264+/H.264, MPEG4 and MJPEG video compressions
- G.722, G711A, G726, G711U, MPEG2-L2, and AAC audio compressions



DS-C10S-S11/22/41/E
Video Wall Controller

- Maximum 184-ch. analog, or 92-ch TVI or 92-ch HDMI / DVI / VGA input
- Maximum 72-ch. HDMI / DVI / VGA output
- Up to 72-piece screen jointing
- Built-in Matrix
- Supports joint, division and display
- Base map
- Cross-window video roaming
- Supports HDD hot swapping
- Redundant power supply



SMART TRAFFIC SAFE TRANSIT INTELLIGENT TRAFFIC SYSTEMS

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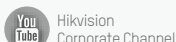
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