![Dahua Technology logo]

DAHUA
TECHNOLOGY

Vision

World Leading Video-Centric Smart IoT Solution & Service Provider

Core Values

Customer-Oriented, Dedicated to Success

Mission

Enabling a Safer Society and Smarter Living

01

Overview

02

Competency

03

Business

01

OVERVIEW

- About Us
- History

ABOUT US

Zhejiang Dahua Technology Co., Ltd. (Dahua Technology) is a world-leading video-centric smart IoT solution and service provider. With more than 16,000 employees and over 50% engaged in R&D, Dahua Technology has solutions, products, and services applied in 180 countries and regions. Since the launch of the industry's first self-developed 8-channel embedded DVR in 2002, Dahua Technology has devoted itself to technological innovation and been continually increasing its investment in R&D, putting around 10% of its annual sales revenue into R&D. The company continues to explore emerging opportunities based on video IoT technologies and has already established business in machine vision, video conferencing systems, professional drones, electronic license plates, RFID, and robotics, etc.

Dahua Technology has established 53 overseas subsidiaries and representative offices covering the Asia Pacific, North America, Europe, Africa and other regions to provide customers with speedy and high-quality services. Dahua products are widely applied in key vertical markets such as public security, traffic, retail, banking & finance, and energy, etc. Numerous major projects have been installed with Dahua solutions and products - China International Import Expo, the Rio Olympics, G20 Hangzhou Summit, BRICS Xiamen Summit, Lincoln City Surveillance in UK, Recife Subway in Brazil as well as many others.

The company has applied for over 2,800 patents, including more than 150 international patents. Dahua Technology has been ranked 2nd for 5 years in a row in the global CCTV & video surveillance equipment market*, and has maintained its spot in the 2019 a&s Security 50, ranking 2nd for two consecutive years.

Committed to the mission of "Enabling a safer society and smarter living", Dahua Technology will adhere to the core value of "customer-centered ", provide the market with excellent quality and service to create more value for customers, and make unremitting efforts to build a safe, intelligent, convenient and efficient society.
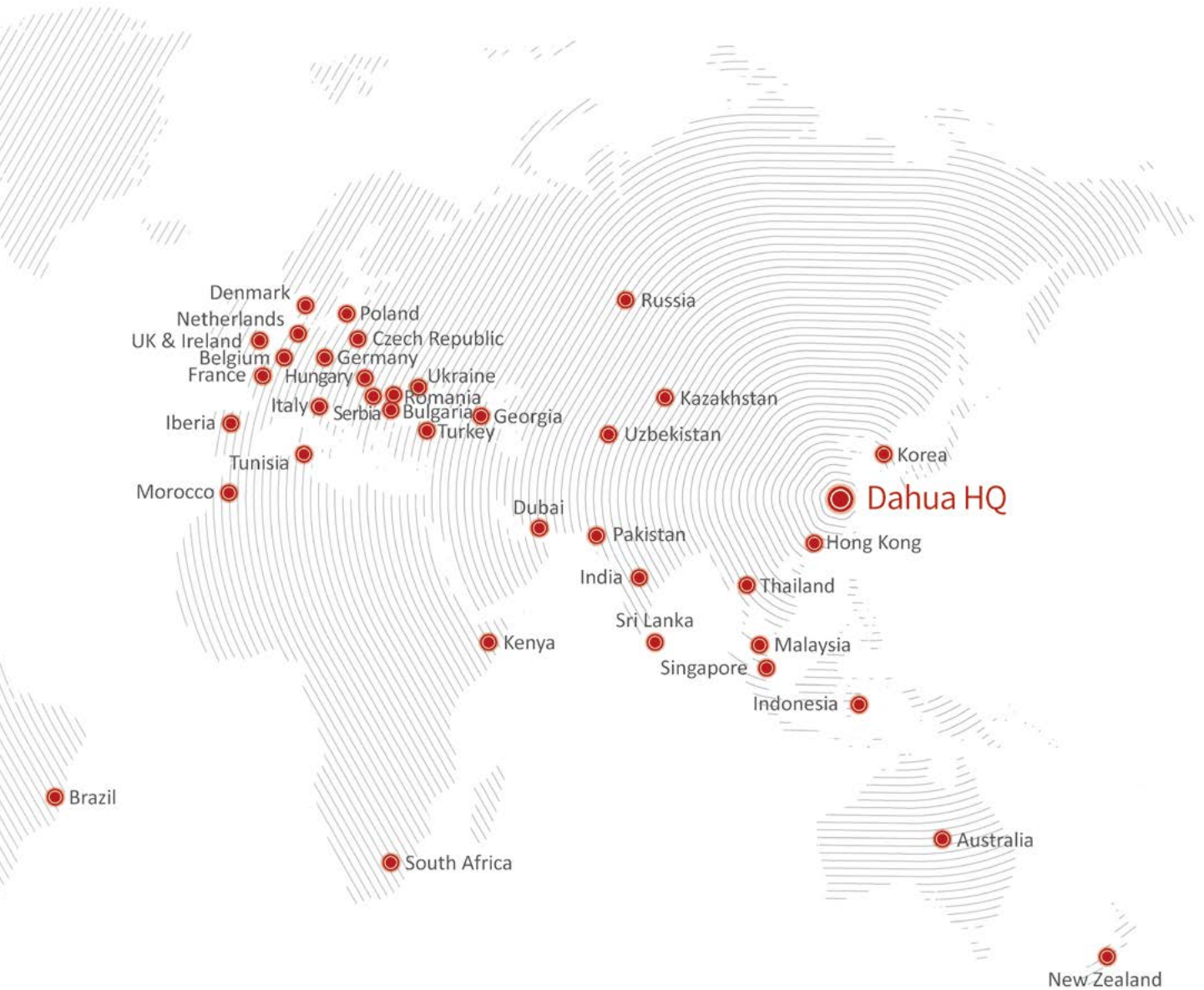
Visit www.dahuasecurity.com to learn more.

Canada
Lorex (CAN)
USA
Lorex (US)
Mexico
Panama
Colombia
Peru
Chile
Argentina

16000+
Employees

2800+
Patent Applications

180
Distribution Coverage
(Number of Countries
and Regions)

Denmark
Netherlands
UK & Ireland
Belgium
France
Iberia
Tunisia
Morocco
Poland
Czech Republic
Germany
Hungary
Ukraine
Italy
Serbia
Romania
Bulgaria
Turkey
Georgia
Russia
Kazakhstan
Uzbekistan
Korea
Dahua HQ
Dubai
Pakistan
Hong Kong
India
Thailand
Sri Lanka
Malaysia
Singapore
Kenya
Indonesia
Brazil
Australia
South Africa
New Zealand

200+
China Offices

53
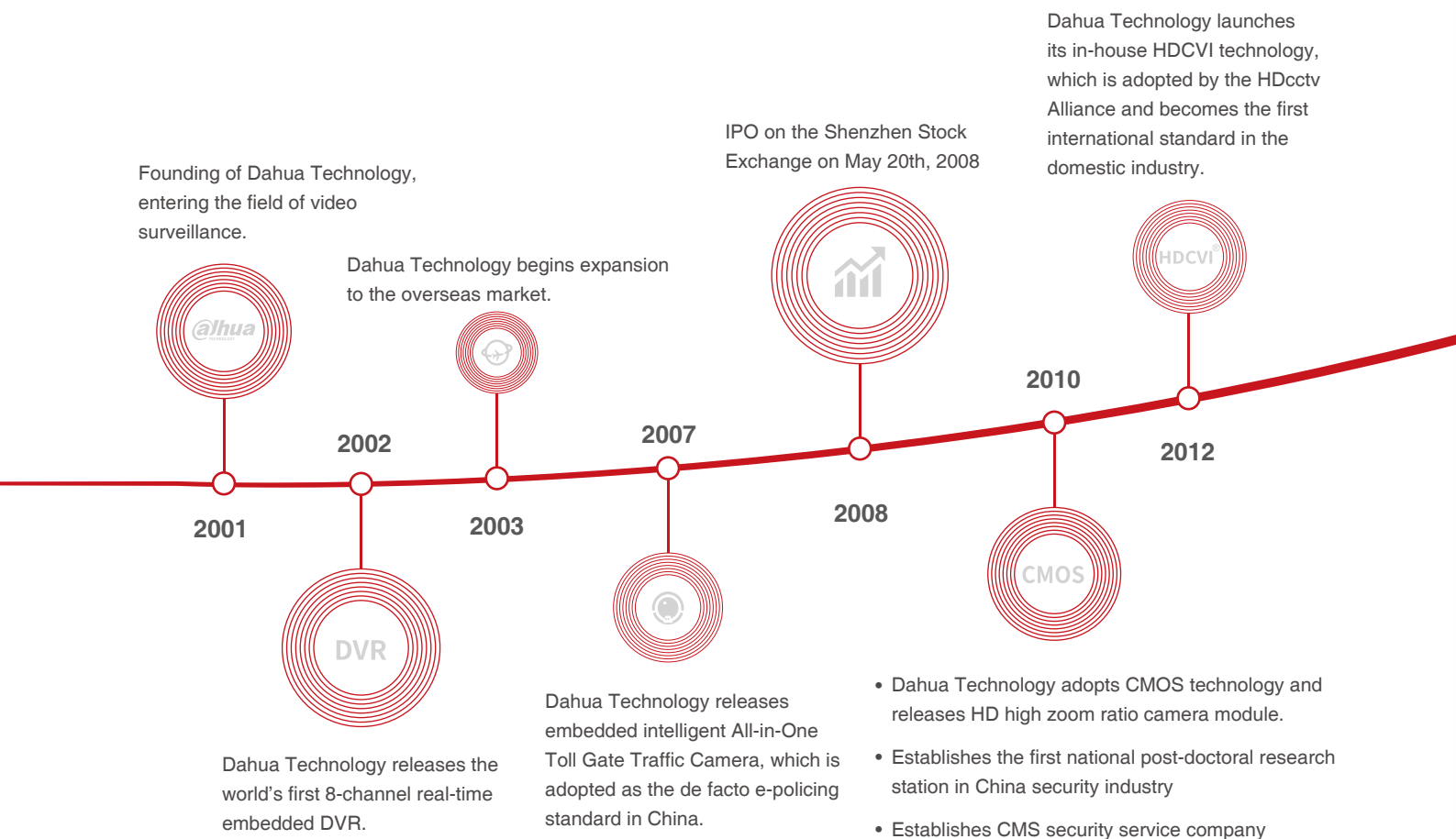Overseas Subsidiaries and Representative Offices
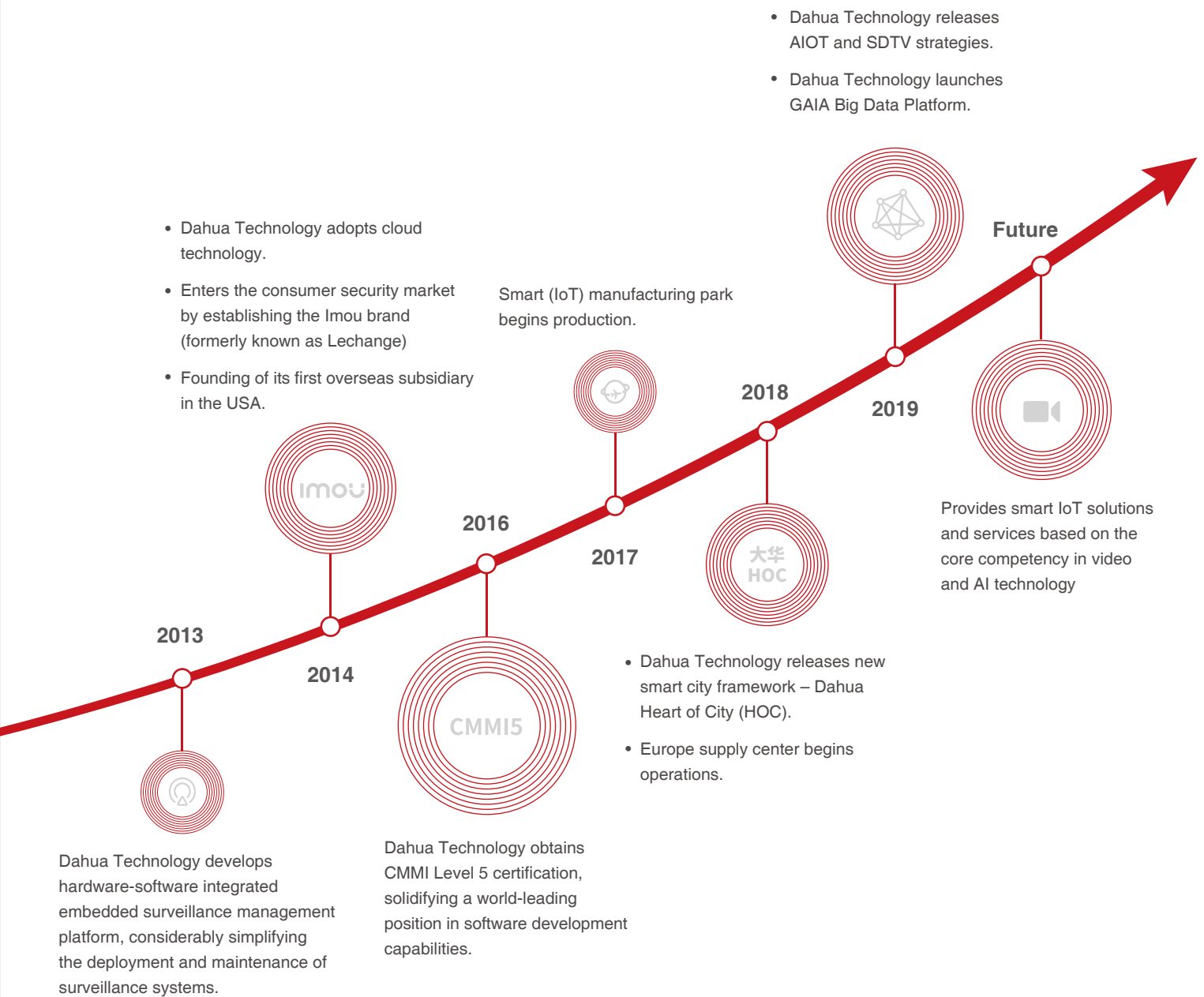
No.2 *
Global Market Share

* Source: 2019 IHS World Wide CCTV & Video Surveillance Market Share Ranking

HISTORY

- 2019: Achieved **CNY 26.149 billion** (USD3.73 billion) in total operating revenue.

- Focused on building core competency. Maintained high R&D investment with **CNY 2.794 billion** (USD 399 million) in 2019. YOY growth: **22.35%**.

- Realized **40.3%** income CAGR and **36.5%** profit CAGR since its IPO in 2008.

The USD value of operating revenue and R&D investment is based on the exchange rate on March 31st, 2020 (7.0066) for reference purposes only.

Dahua Technology launches its in-house HDCVI technology, which is adopted by the HDcctv Alliance and becomes the first international standard in the domestic industry.

IPO on the Shenzhen Stock Exchange on May 20th, 2008

Founding of Dahua Technology, entering the field of video surveillance.

Dahua Technology begins expansion to the overseas market.

2010

2002

2007

2012

2001

2003

2008

Dahua Technology releases the world's first 8-channel real-time embedded DVR.

Dahua Technology releases embedded intelligent All-in-One Toll Gate Traffic Camera, which is adopted as the de facto e-policing standard in China.

- Dahua Technology adopts CMOS technology and releases HD high zoom ratio camera module.

- Establishes the first national post-doctoral research station in China security industry

- Establishes CMS security service company

- Dahua Technology releases AIOT and SDTV strategies.
- Dahua Technology launches GAIA Big Data Platform.

Future

- Dahua Technology adopts cloud technology.
- Enters the consumer security market by establishing the Imou brand (formerly known as Lechange)
- Founding of its first overseas subsidiary in the USA.

Smart (IoT) manufacturing park begins production.

2018

2019

Provides smart IoT solutions and services based on the core competency in video and AI technology

2016

2017

2013

2014

- Dahua Technology releases new smart city framework – Dahua Heart of City (HOC).
- Europe supply center begins operations.

Dahua Technology develops hardware-software integrated embedded surveillance management platform, considerably simplifying the deployment and maintenance of surveillance systems.

Dahua Technology obtains CMMI Level 5 certification, solidifying a world-leading position in software development capabilities.
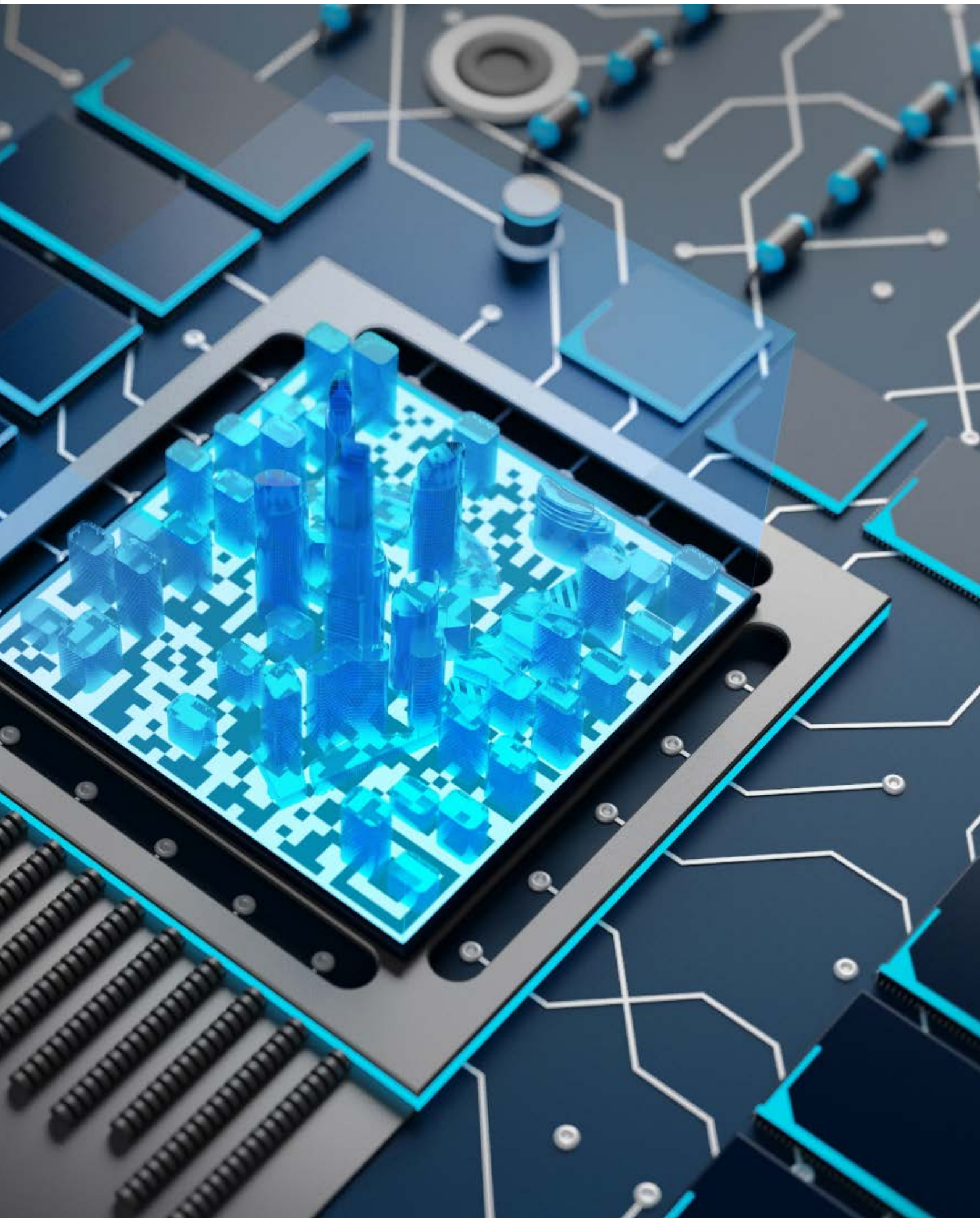
02

COMPETENCY

- Innovation
- Quality
- Service

INNOVATION

Innovation is one of the key driving forces and core competencies in Dahua Technology's development. Each year, the company invests approximately 10% of its sales revenue into R&D and innovation. Dahua Technology has continuously been at the forefront of technology development in the industry, satisfying the diverse needs of its customers.

Dahua Technology has established five research institutes: Advanced Technology, Big Data, Chip Technology, Central and Network Security Institute. With its national postdoctoral workstations, Dahua Technology is recognized as a national certified enterprise technology center and national innovative pilot enterprise, aiming to continuously create breakthrough contributions and guide the industry's development.

Advanced Technology Institute

AI and cutting-edge technology research

AI Technology

Based on deep learning technology, Dahua Technology realizes AI video and image analysis, including target detection, tracking, identification and other intelligent algorithms of faces, people, vehicles, objects, texts and scenes. It also features intelligent algorithms on event, behavior, scene understanding, multi-camera search, situation sensing, etc., and constructs self-developed deep learning framework and training platform.

Automated Control Technology

Based on vision positioning, laser measurement, SLAM, multi-machine cooperation, motion control and other technologies, Dahua automatic control technology employs machine vision, laser, radar, and other sensors to achieve its applications in the field of robotics and machine vision, such as map construction, automatic navigation, location recognition, real-time scheduling, industrial inspection, and multi-axis mechanical arm control.

Multidimensional Sensing Technology

Based on 3A audio preprocessing and positioning, infrared detection and measurement, image fusion and other technologies, Dahua Technology combines video with microphone array, thermal imaging, radar, and sensors to realize the collection and fusion of multi-dimensional sensing data, multi-camera video fusion and other applications.

Big Data Institute

Cloud computing, cloud storage, big data technology research

Cloud Computing Technology

Through its cloud-based video-centric IoT platform, the Dahua cloud computing technology realizes: large-scale and highly reliable video and image storage; intelligent analysis of people, vehicles, objects, etc.; multi-dimensional structured mass storage retrieval; and cloud container for ecological application, providing services that are needed for computing, storage, intelligence, data and other resource pools.

Big Data Technology

Based on big data components and data mining technology, and through data aggregation, management, analysis, and mining technology, an integrated analysis of video IoT data and industry data can be achieved in order to realize data intelligence and assist business transformation in different vertical markets.

Video Cloud Technology

Dahua cloud-based video IoT platform provides city-level, industry-level and commercial-level users with various applications and services such as mass video IoT data access, storage, streaming media, converged communications, etc.

Chip Institute

Self-developed chip technology and industry research

AI Chip Technology

Dahua self-developed AI chip is designed for video surveillance, machine vision, automobile electronics, intelligent buildings, and other intelligent video processing needs. It provides a wide range of industrial applications with high computing performance, low power consumption, low delay, and high performance-price ratio.

HDCVI Technology

Dahua's patented HDCVI (High Definition Composite Video Interface) technology is the first technical specification to be adopted in the international standards of China's security industry. It employs coaxial audio and video transmission technology, and continues to upgrade and innovate.

Digital-analog Hybrid Chip Technology

Based on the control technology breakthrough in the mass production of corresponding control chips in the front-end and back-end of PoE devices, Dahua Technology has become the first chip manufacturer in China to provide a complete PoE solution. With the capabilities for large-scale industrial application, it has broken through the technical bottleneck of highly complex IP technology such as high-speed ADC, DAC, etc.
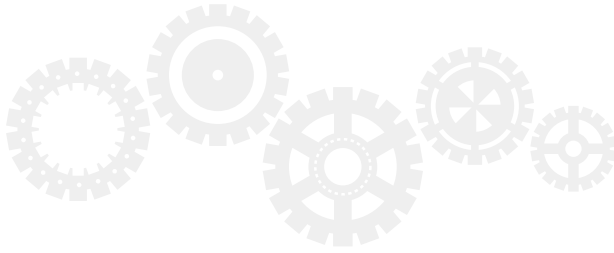
Central Institute

Core technology and new field technology research

IoT Technology

Combines 5G, NB-IoT, LoRa, G.hn, EPoE (Dahua's patented enhanced Ethernet technology) and other information communication technologies with radar, ultrasound, laser and other sensing technologies in order to realize intelligent identification, location, tracking, monitoring, and management.

Basic Engineering Technology

Through audio, video and positioning, as well as its seamless engineering capability on software and hardware, Dahua Technology develops advanced packaging, processes, standards, protocols and other fundamental technologies to provide standardized and modular engineering components for products, ensuring efficient and reliable product development and achieving leadership in product and technology.

Network Security Institute

Device, network, and system security technology research

Cybersecurity Technology

Dahua Technology fully implements product safety development process, and has established a baseline of safety requirements to ensure product safety throughout its life cycle while protecting customer interests and privacy rights. Valuable city-level and industry-level security solutions have been created to meet domestic and international security requirements based on the security threats faced by customers. Dahua IP video monitoring products comply with EU GDPR and have received the industry's first Protected Privacy IoT Product Certification from TÜV Rheinland.

Product Security Incident Response Team

With standardized process in vulnerability handling and emergency response, Dahua Technology has joined Forum of Incident Response and Security Teams (FIRST), MITRE, China National Vulnerability Database of Information Security (CNNVD) and China National Vulnerability Database (CNVD).

4
National Torch Program Projects

5
National High-Tech Industrialization Projects

2
National Projects regarding "core electronic devices, high-end general-purpose chips and fundamental software"

10
National Standards

33
Industry Standards

150+
International Patents Applications

7
RED DOT Design Awards

9
IF International Design Awards

QUALITY

Guided by customer needs and dedication in customer success, Dahua Technology utilizes its solid manufacturing capabilities and robust overall process quality system in providing strong support for high-quality delivery of products and services, employing its "spirit of craftsmanship" to redefine the concept of "Intelligent Manufacturing" and to continuously create value for customers.

Full-Process Quality Control System

Dahua Technology's rigorous full-process quality control system ensures the fine management of its quality management process. Dahua Technology is devoted to meeting customer needs and exceeding customer expectations through continuous improvement in the quality of its products and services.

Sales Quality	R&D Quality	Purchasing Quality	Manufacturing Quality	Delivery & Service Quality
Quality Improvement Based On Customer Satisfaction	Quality Improvement Based On Process	Quality Improvement Based On Risk Management		Quality Improvement Based On Corporate Culture
• Focus on customer needs and expectations • Delve deeply into customers' pain points and requirements • Follow industry standards and make internal improvement	• Quality standards incorporate LTC, IPD, ISC, ISD and ITR five business processes • Attach importance to process quality and result quality	• Identify the main business process quality risk, establish quality assurance red line • Establish root cause backtracking and prevention mechanism, and continuously improve process quality standard		• Customer-Oriented, Dedicated to Success • Make customers simple, leave complexity to ourselves • Take quality seriously, quality is everyone's responsibility

Quality Management System + Quality Improvement Platform

Integrated Supply Chain

The integrated planning system assists Dahua information system and enables efficient coordination between design, procurement, production, sales and service, improving its product supply and service response capabilities. Additionally, Dahua Technology has been continuously promoting the construction of its global supply network. In addition to the Hangzhou headquarters in China, the company has established regional supply centers in Hungary, Mexico and other countries, and has built regional HUB warehouses in its core logistics distribution centers such as the Netherlands and Dubai, forming a multilevel supply network.

Lean and Intelligent Manufacturing Strategy

Focusing on lean planning, lean procurement, lean manufacturing and lean logistics, Dahua Technology has developed its 2025 Dahua Intelligent Manufacturing strategy on the basis of refined operation. Dahua Smart (IoT) Industrial Park adopts advanced manufacturing equipment and a series of self-developed automatic equipment for different batch production modes, such as automatic assembly station, machine vision inspection equipment, automatic product testing platform, AGV robots, etc. It takes an international advanced information platform as a hub, and uses digital technology as a means to fully achieve capabilities in information sensing, execution control and data decision-making in order to achieve efficiency improvement and quality control.

Ongoing Reliability Lab (ORL)

The Dahua ORL has obtained national CNAS and IEC CTF2 certifications, meets testing requirements across various categories, to ensure its products can maintain the same high quality in high-temperature, humid, sandy or dusty, saline, or vibrating environments.

SERVICE

With professional, fast, and end-to-end delivery and service capabilities, Dahua Technology has established an integrated business center, operation and maintenance service center, in-depth design center, technical service center, training certification center, and customer service center to provide global customers with delivery and other services throughout the solution's life cycle, creating a world-leading, efficient and professional delivery and service platform.

80+
Spare Parts Storage Centers

5-Star
National Product After-Sales Service Certification

Level 2
National ITSS Certification

4000+
Project Managers and Technical Service Staff

Level 1
Industry System Integration Certification

ISO 20000
International Certification

1000+
Service Partners

Class B
Industrial Building Intelligent Design Certification

Level 1
Design, Construction & Maintenance Capability in Security Engineering
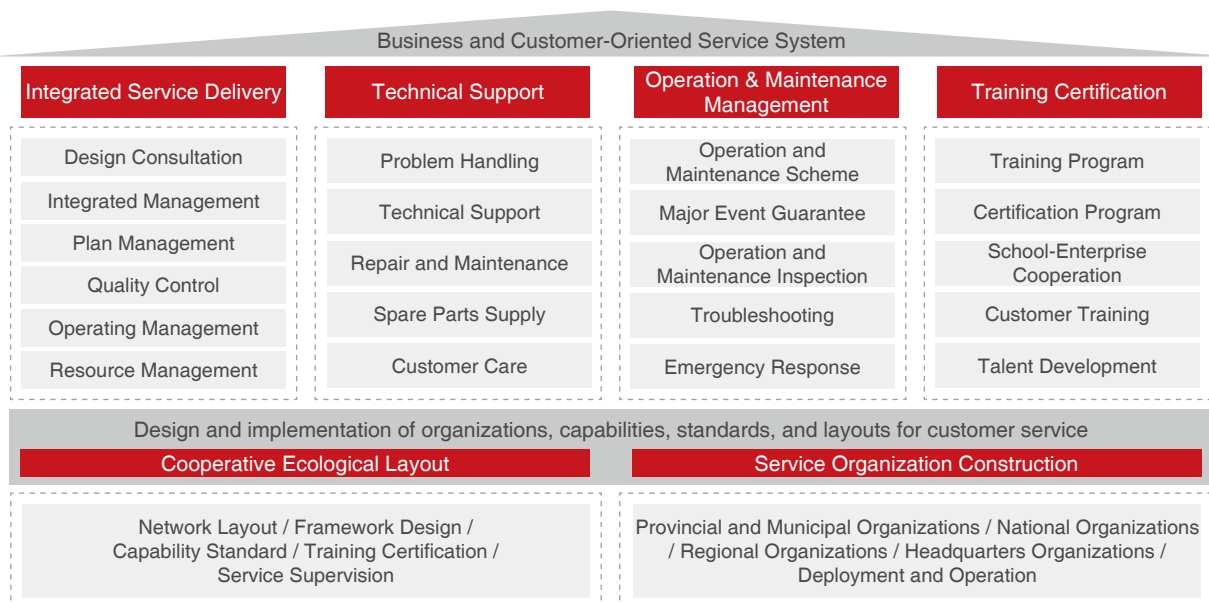
Global Service Network

Dahua Technology provides users around the world with a multi-dimensional service network of headquarters, branch offices, and authorized service stations, which aims to improve service experience, user perception, and overall user satisfaction.

Global Customer Center	Branch Office/Local Customer Center	Authorized Service Network
Unified Service Standards and Specifications	Local Delivery and Service Center	Service Capability Certification Standards
Integrated Multi-sector Service Resources	Local Support and Customer Complaint Response	Overall Visualized & Closed-loop Service Process
Serving the World	Local Competence and Service Empowerment	Normal Standardized Service

Full Lifecycle Delivery and Service System

Supports 4 major systems in order to form a global professional service platform that provides customers with efficient and standard end-to-end delivery and services. It covers consulting and design, integration and delivery, operation and maintenance, training and certification, quality and after-sales, continuously creating service value for customers.

Business and Customer-Oriented Service System

Integrated Service Delivery	Technical Support	Operation & Maintenance Management	Training Certification
Design Consultation	Problem Handling	Operation and Maintenance Scheme	Training Program
Integrated Management	Technical Support	Major Event Guarantee	Certification Program
Plan Management	Repair and Maintenance	Operation and Maintenance Inspection	School-Enterprise Cooperation
Quality Control	Spare Parts Supply	Troubleshooting	Customer Training
Operating Management	Customer Care	Emergency Response	Talent Development
Resource Management			

Design and implementation of organizations, capabilities, standards, and layouts for customer service

Cooperative Ecological Layout	Service Organization Construction
Network Layout / Framework Design / Capability Standard / Training Certification / Service Supervision	Provincial and Municipal Organizations / National Organizations / Regional Organizations / Headquarters Organizations / Deployment and Operation

03

BUSINESS

- Heart of City
- City Level
  - Safe City
  - Smart Traffic
  - Smart Transportation
- Industry Level
  - Smart Industrial Park
  - Smart Logistics
  - Smart Residential Area
  - Smart Retail
  - Smart Education
  - Smart Banking & Finance
  - Smart Energy
  - Small & Medium-Sized Business
- Commercial Level
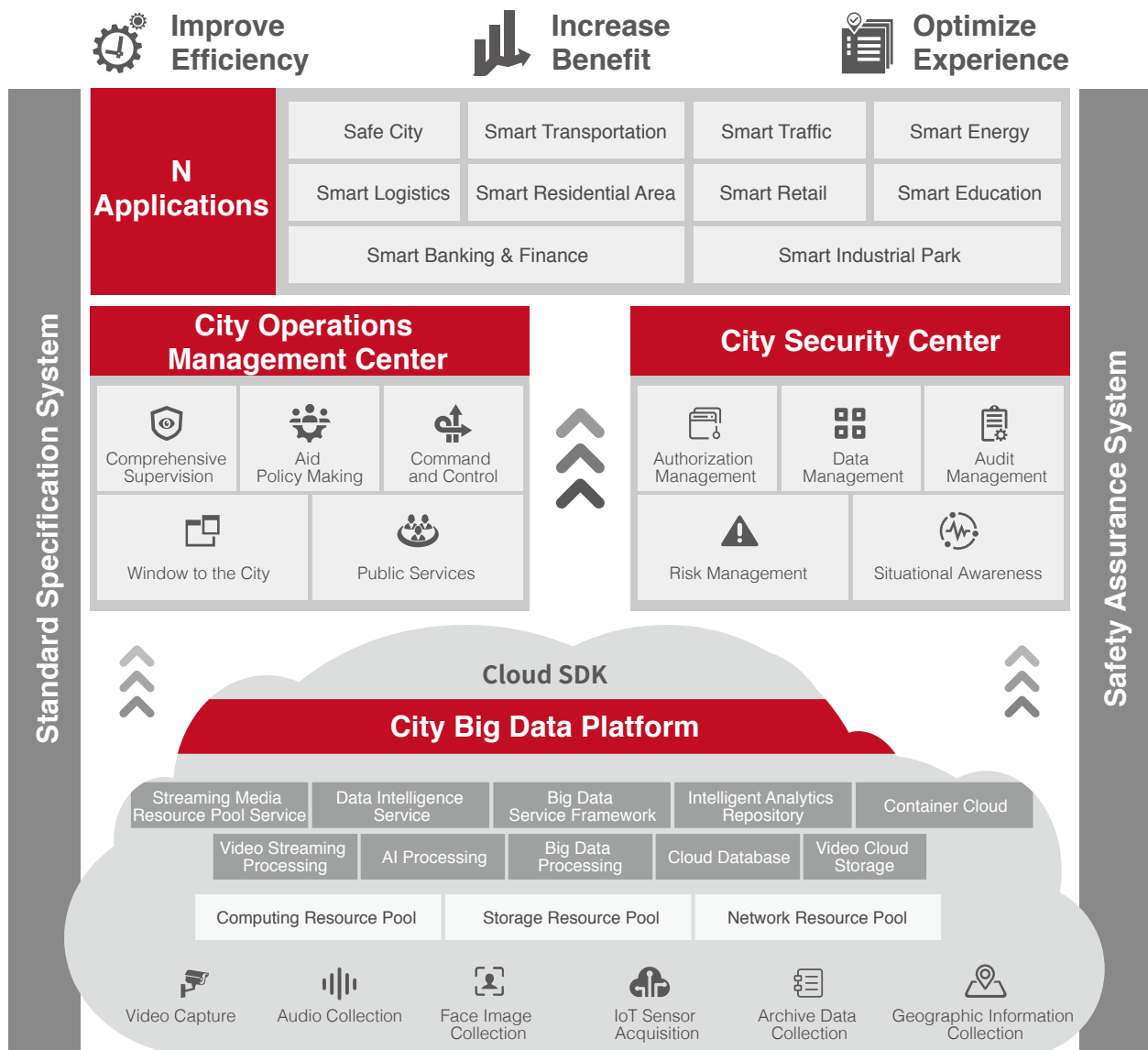 - Imou
- Core Products

HEART OF CITY

" Dahua Heart of City (HOC) " is a smart city development engine supported by Full Sensing, Full Intelligence, Full Computing, and Full Ecosystem (4 Full) capabilities. It realizes the construction of a " 1 platform, 2 centers, N applications " (1+2+N) new smart city framework for application at the city, industry, and commercial level.

Dahua Heart of City features a top-level design based on giving cities '4 Full' capabilities to drive urban development, achieving " improve efficiency, increase benefit and optimize experience," and in-depth design principles based on " solving customer business pain points and creating economic, social, and business value through scientific and orderly construction and operation from a global perspective."

Improve Efficiency   **Increase Benefit**   **Optimize Experience**

Standard Specification System

N Applications

Safe City	Smart Transportation	Smart Traffic	Smart Energy
Smart Logistics	Smart Residential Area	Smart Retail	Smart Education
Smart Banking & Finance		Smart Industrial Park	

City Operations Management Center

Comprehensive Supervision | Aid Policy Making | Command and Control

Window to the City | Public Services

City Security Center

Authorization Management | Data Management | Audit Management

Risk Management | Situational Awareness

Safety Assurance System

Cloud SDK

City Big Data Platform

| Streaming Media Resource Pool Service | Data Intelligence Service | Big Data Service Framework | Intelligent Analytics Repository | Container Cloud |
| Video Streaming Processing | AI Processing | Big Data Processing | Cloud Database | Video Cloud Storage |

Computing Resource Pool | Storage Resource Pool | Network Resource Pool

Video Capture | Audio Collection | Face Image Collection | IoT Sensor Acquisition | Archive Data Collection | Geographic Information Collection

[Full Sensing]
Value creation through online sensing of objects and scenes

Employs "video-centric" smart IoT technology, products, and solutions to focus on customer business scenarios and build a professional and efficient sensing network.

[Full Intelligence]
Value creation through enabled intelligent setup

Focuses on "solving customer business pain points and creating customer value" to provide customers with a full range of smart products, solutions, and network architecture capabilities, and to achieve the upgrade and transformation of AI-empowered customer service.

[Full Computing]
Value creation through scenario-based computing capabilities

Based on deep understanding of business needs, it provides customers with top-level planning and in-depth design capabilities, and enables the network deployment of computing power from a single point to local and then to global, satisfying customers' needs for the optimal pairing of algorithms and computing power across the entire business network.

[Full Ecosystem]
Value creation through the ecosystem's all-win success

Utilizes advantages in video-centric smart IoT products and solutions, and takes a far-reaching attitude of openness and cooperation to create value for customers, achieving all-win results.

[One Platform]
City Big Data Platform

City Big Data Platform: Uses targeted collection and acquisition of urban operations model data to achieve a closed-loop data value chain and to enable data as business services engaged in sensing within needed scenarios, deploying computing power and storage, and realizing business and data modeling required for urban operations.

[Two Centers]

City Operations Management Center:
Provides comprehensive supervision, decision-making aid, command and dispatch services for urban operators to achieve centralized resource deployment and efficient city management operations.

City Security Center:
Encompasses all levels of security, including client security, network security, and data security to enable three-dimensional comprehensive protection and serve as protection for smart city applications, transforming network security from "passive protection" to "active sensing."

SAFE CITY

The Dahua HOC Safe City Solution gains in-depth insight into various types of policing and police affairs operations, which improves intelligence acquisition and operational capabilities of the police. It creates a new "online police" model that enhances prediction, early-warning and prevention capabilities of the police, as well as their accurate crime fighting and dynamic management, comprehensively improving their information-based operation and work efficiency.

Solution Value

Improves the ability of police intelligence and practical applications.

Reduces new cases	Increases case closure rate and efficiency	Improves one-stop service, quickly recovers lost people

Key Cases

Hangzhou Safe City Project

By actively promoting the provincial public security bureau's development goals of "Cloud-based Intelligent Policing Control," the Hangzhou Public Security Bureau (PSB) strives to build the most secure area in the country. Dahua Technology provided the Hangzhou PSB with a complete solution based on the "Dahua HOC Safe City" system and achieved hierarchical file management. Through analysis of 5,000 scenes and 46 practical application models, the system was established to provide a strong backing for combating crime, retrieving lost people, and predicting group events.
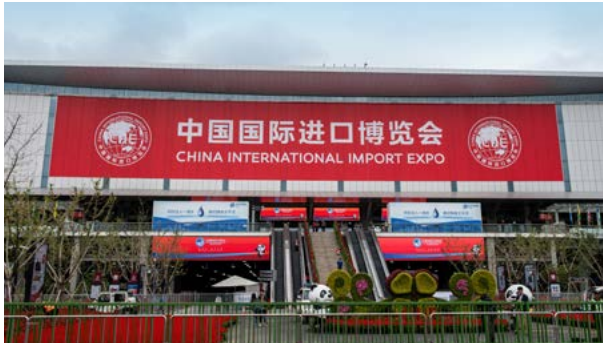
China International Import Expo

Dahua Technology takes "safe, organized, flexible, dignified and efficient" as the overall security requirements, and the circles of control, warning, and core as the overall design concept, adopting AI technology to replace people on duty with machines, to achieve a new security mode that is different from the traditional one.

Rio Olympic Games

Dahua Technology was the main security surveillance supplier for the Rio Olympics, providing a total of 373 IP PTZ cameras, 1,450 IP cameras, and related accessories. They were installed in the main stadium, the Olympic Village, other Olympic event areas, and on main roads to Olympic Games venues, displaying the best of "Made in China" technology.

G20 Hangzhou Summit

As a core provider for G20 security, Dahua Technology provided over 20,000 sets of equipment, a 600 person security team, and dozens of advanced technologies in key and surrounding areas with round-the-clock uninterrupted surveillance in order to guarantee absolute security for the summit.

Lincoln City Surveillance in UK

Dahua Technology delivered a city center video surveillance scheme using more than 300 cameras, monitors and switching equipment to replace the previous 20-year old analogue system of the city. Advanced analytical technologies including video content analytics, face recognition, ANPR, heat maps and pedestrian counting, as well as legacy motion and audio detection were also used to assist the city council to drive innovation in the city and harness new technologies to improve the lives of citizens.

SMART TRAFFIC

The Dahua HOC Smart Traffic Management Solution deeply integrates with traffic management tasks to enhance traffic control and command operations capabilities. The solution serves as a powerful driver of traffic management optimization and traffic management efficiency improvement through a "4-in-1" modern service mechanism led by intelligence research, efficient flat command operation, precise maneuvering, and real-time supervision and control.

Solution Value

- Decline in Traffic Accident Rate
- Decline in Traffic Congestion Index
- Decline in Traffic Violation Rate
- Improvement in Traffic Command Efficiency
- Accuracy in Police Resources Allocation
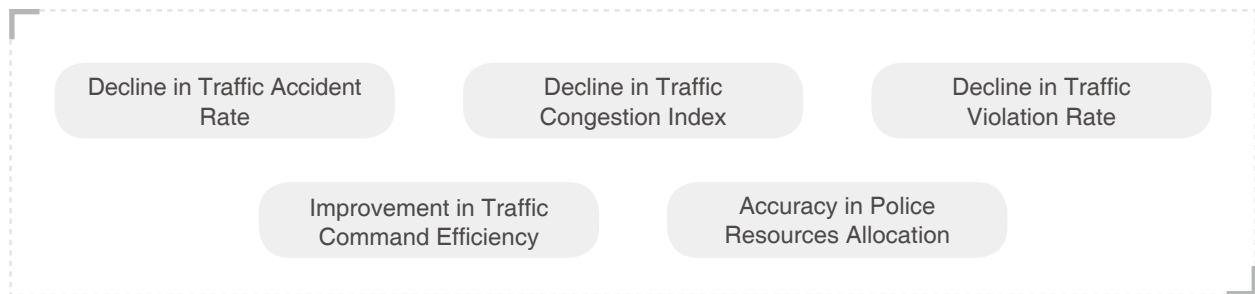
Key Cases

Traffic Project in Ulaanbaatar, Mongolia

Dahua Technology provided a sophisticated ITS solution consisting of ANPR system, E-police and speed measurement systems to cover 28 roads and 8 intersections in Ulaanbaatar. It took only three months from requirements analysis, solution design to project delivery, overcoming the challenges of extreme climate and lack of technical support, assisting the local transportation department to finance a sustainable, growing, and well-maintained system of security and safety.

Liuzhou Traffic Police

The Liuzhou Police achieved comprehensive and integrated traffic management and control through the construction of road monitoring, intelligent checkpoints, parking violation capture, electronic policing system, traffic safety law enforcement service stations, and a smart traffic integrated control platform and command center.

Zhejiang Highway Traffic Police

The Zhejiang Highway Traffic Police utilizes overspeed/underspeed capturing, vehicle cloud system, etc. in order to achieve vehicle speed control, trajectory tracking, real-time judgment and prediction, and other related function. It built a safety, prevention, and control system to conscientiously improve road traffic and effectively prevent and reduce traffic accidents.

SMART TRANSPORTATION

The Dahua HOC Smart Transportation Solution utilizes big data, intelligence, visualization and other means on transportation vehicles, hub stations and travelers for aviation, rail transit, highway, public road, transport, railway, and ports. It promotes travel convenience and safety, improving the security in the comprehensive transportation industry, travel service, as well as business level of operation efficiency.

Solution Value

> Diversified data sharing, accurate detection and early warning enhance transportation safety and business efficiency.

> Multidimensional data fusion and decision-making assistance facilitate transportation travel services.

Key Cases

Airport in Sri Lanka

One of the airports in Sri Lanka adapted Dahua Thermal Imaging Perimeter Monitoring System to protect the safety of its flight zones. The system has guaranteed the takeoff and landing of more than 60,000 aircrafts, guarding the safety of 10 million passengers throughout the year.

Yarmouth Harbor in UK

A mix of Dahua thermal bullets, IR bullets, Ultra PTZs, IR domes and fisheye cameras were installed at the harbor. The new surveillance system has transformed the user's ability to monitor the harbor for the safety and security of their customers, staff and the visiting public.

Recife CBTU Subway in Brazil

Recife's urban trains system carries around 400 thousand passengers a day. It is the third largest railway operator in Brazil based on number of users. Dahua Technology provided 1,380 high-resolution cameras to monitor 52 places scattered all over the 71 km railway line at the capital and metropolitan area to ensure safe journey for passengers.

SMART INDUSTRIAL PARK

The Dahua HOC Smart Industrial Park Solution extends the IoT application to the business scenarios of industrial parks, relying on AI technology to realize intelligent upgrade of people, vehicle and object management. In addition, it creates a big data platform to achieve "data integration, situation visualization and incident control," helping industrial parks upgrade their level of safety, increase work efficiency, and reduce management costs.

Solution Value

Enhances Level of Safety
AI empowerment achieves accurate early-warning and convenient post-investigation.

Improves Work Efficiency
Online fusion and calculation of people, vehicles, and objects makes operation accurate, visual and highly efficient.

Reduces Management Costs
Replaces workers with machines to improve operation and management efficiency with streamlined staffing.

Key Cases

Fort Dunlop in UK

An updated video surveillance solution consisting of 96 cameras from Dahua Technology was installed at the striking Fort Dunlop commercial and retail site, ensuring protection of the staff, visitors and the building itself.

Pengsheng Industrial Park in Uzbekistan

Dahua Technology provided a high-end monitoring system that contains over 500 HD cameras, 100 IP cameras, central management, central storage as well as display and control system all around the factory to protect the whole park, which greatly improved its management efficiency.

Yili Group

The project helps Yili Group realize AI applications in its park, such as face recognition access control, employee attendance and online patrol, which greatly improves the park's security level, efficiency of employee entering the park, attendance data accuracy and visitor management standardization.

SMART LOGISTICS

The Dahua HOC Smart Logistics Solution focuses on the four main processes of logistics – transportation, warehousing, transit and distribution – in order to provide a scenario-based end-to-end solution around the three major businesses of security, operation and management by using automation, intelligence, and visualization means in managing people, vehicles, goods and cargo areas. It enhances safety and prevention capabilities of logistics companies, assists in business operation and management, and improves logistics quality and efficiency.

Solution Value

Automated Operation: Improves cargo transfer efficiency, reduces manpower, improves safety and work accuracy of staff and goods, and enhances emergency response efficiency.

Business Intelligence: Uses AI, deep learning and other technologies to cover the security, operation and management of logistics enterprises, realizing the intelligence of logistics business.

Management Visualization: Assists logistics enterprises to achieve digitalized and visualized operation and management, and to improve effective supervision, timely warning and accurate decision-making.

Key Cases

Logistics Company in The Netherlands

Dahua industrial cameras were employed to capture the barcode and timestamp of each parcel shipped through the conveyor. The information is transmitted to the Dahua DSS management platform at the control center, enabling the operator to generate a corresponding PDF document of the parcel with image, order and tracking number via video clips for future evidence, which reduced package loss.

Deppon Logistics

Dahua Technolgy provided the headquarters of Deppon Logistics with a national online video monitoring platform and large LED splicing display system, enabling focused management and unified command. The solution enabled visualization and network-connected tracking via over 2,000 cameras, allowing rapid and efficient position locating and improving service quality and customer satisfaction.

JD Logistics

Dahua Technology built a video surveillance network platform at JD headquarters to achieve a centralized management and unified control of its video surveillance, mainstream third-party manufacturers, and other systems. Based on the actual situation of JD, Dahua Technology made full use of visualized and intelligent technologies to provide its small and medium-sized stores and distribution centers with video surveillance data access, realizing authorization and direct control of headquarters, and assisting users with remote supervision and investigation.

SMART RESIDENTIAL AREA

The Dahua Smart Residential Solution consists of diversified modules, such as video surveillance, video intercom, access control, perimeter protection, personnel management, vehicle management and multi-community management etc., aiming to create comfortable, safe and high-quality community, increase management efficiency and reduce labor costs.

Solution Value

Creates Highly Secured Community
Diversified protection based on different scenarios; powerful information integration via open platform

Enhances Living Experience and Satisfaction
Cardless access to enter/exit; online management; privacy protection

Cost-Effective Property Management Services
Centralized management of multiple communities; smart management of people and vehicles; convenient services

Key Cases

Akademichesky in Moscow

Akademichesky district employed more than 2,500 Dahua cameras including speed dome PTZ cameras, eyeball cameras, ANPR cameras, etc., with Dahua VMS central platform for video surveillance and camera integration, which ensures high level of security within the whole district.

Shanghai Zijin No.9 Project

The project utilized face access control terminal, video intercom, smart parking and unified management systems to provide residents with smart applications such as door access via face recognition or QR code scanning, mobile payments and other services via mobile app, which improved property management efficiency, reduced management costs, and brought safety and convenience to residents.
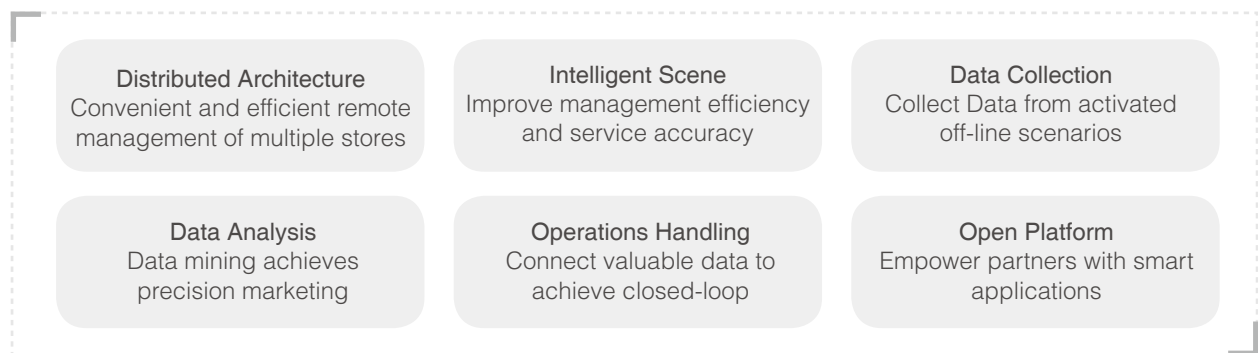

Hangzhou Linglong Palace Project

The project adopted Dahua smart residential system, including hundreds of video monitoring equipment, over 1,400 pcs of video intercom, hundreds of public rental access points, smart parking guidance and other systems, achieving efficient, convenient and unified management in the community, and enhancing the living experience of the residents.

SMART RETAIL

The Dahua HOC Smart Retail Solution takes actual store scenarios as the entry point, combined with smart sensing technology and integrated platform to help retailers achieve business intelligence. Based on data analysis of people, goods and scenes, it provides intelligent data support for store management, precision marketing, trend forecasting, etc., assisting retailers in increasing operation efficiency and reducing costs while ensuring safety and preventing losses.

Solution Value

Distributed Architecture Convenient and efficient remote management of multiple stores	**Intelligent Scene** Improve management efficiency and service accuracy	**Data Collection** Collect Data from activated off-line scenarios
Data Analysis Data mining achieves precision marketing	**Operations Handling** Connect valuable data to achieve closed-loop	**Open Platform** Empower partners with smart applications

Key Cases

Supermarket in Egypt

The Dahua solution involves IP cameras, networked keyboards, NVRs as well as a facial recognition server, featuring advanced facial recognition software, people counting, heat map and other cutting-edge functions to assist the supermarket in improving business operation and decision-making.

Vanguard

Dahua Technology helped Vanguard achieve intelligent loss prevention, precision marketing and other benefits through visualized commercial platform, which assists its stores in digital transformation with reduced costs and increased operation efficiency.

SAIC Motor Store

Dahua Technology provided the SAIC Motor Store with: AI-based intelligent footfall analysis; intelligent storage; visualized store management and business applications to improve service quality and optimize vehicle selection and forecasting; and targeted marketing for customer conversion.

SMART EDUCATION

Following the "Overall Framework of Intelligent Campus", the Dahua HOC Smart Education Solution combines the design idea of Dahua HOC "1+2+N" with IoT, online intelligent analysis, cloud computing and other technologies to realize all kinds of intelligent scene-based business and data applications, providing an integrated solution for campus information construction including intelligent security, intelligent logistics, intelligent teaching, campus big data, etc.

Solution Value

Big data integration to assist campus in information-based decision-making

Establish campus information resource pool to enable intelligent information sharing

Firefighting control and management for people and vehicles to improve security level

Intelligent face recognition to strengthen attendance management

Innovative intelligent classroom to assist teaching

Key Cases

Zhejiang University

Dahua Technology has delivered a complete solution and built an integrated visual security system for Zhejiang University through its AI offerings such as face recognition, map search, patrolling via face image, etc. to guarantee the safety of teachers and students through intelligent, visual, efficient, advanced and reliable technologies.

Beijing Institute of Technology

Dahua Technology has been cooperating with the Liangxiang Campus of Beijing Institute of Technology for many years, constructing the overall security prevention system for Liangxiang Campus based on the college's planning and layout. Taking "building one safety command platform" as its key principle, Dahua Technology utilizes one security network to accomplish the application and connection of nine sub security systems within one security command center, which greatly improves the security level of the campus.

Nanchang Hangkong University (NCHU)

In response to the pain points regarding students, teachers and administrators, Dahua Technology has cooperated intensively with NCHU to jointly build a smart residential management system based on face recognition technology. It includes touchless dormitory access, accurate attendance data statistics via WeChat notification, real-time alarm of students' abnormal behaviors, big data real-time display and other applications, improving the university management efficiency and ensuring dormitory safety.

SMART BANKING & FINANCE

The Dahua HOC Smart Banking & Financial Solution integrates bank security and financial services with AI, IoT, big data and other technologies to enable information upgrade in bank security management, and comprehensively assist banks regarding risk management and financial digitalization.

Solution Value

One Fulfilment
To fulfill the standards of the financial industry, safeguard daily security needs using technology, and ensure bank safety.

Two Improvements
Improvement in case prevention and control capability, building the whole-process case prevention and control system; improvement in business and operation efficiency, reducing costs.

N Types of Services
Full range of service applications, providing comprehensive data support for business risk control and compliance risk management.

Key Cases

Bank of China

The project involves 37 first-tier branches and direct branches, more than 360 second-tier branches, more than 13,000 primary organizations, over 700,000 video access, and over 250,000 alarm access, enabling interconnection of Bank of China's whole network of security services and security barriers. With this as basis, the project adopted advanced technologies such as AI and big data to realize innovative applications such as behavior analysis, face image application and video compression. This further enhanced the bank's case prevention and control capabilities, and laid a solid foundation for big data application.

China Merchants Bank

A big data platform covering the whole area was built for system and data sharing in order to achieve basic security, mobile APP, intelligent network, blacklist network control /VIP identification, performance management, video structuring, overtime or non-arrival of armored van, loitering and other business applications. It standardized the bank's security performance, strengthened security and business supervision, optimized management control processes, improved management efficiency, effectively enhanced internal and external user satisfaction, and reduced overall operating costs.
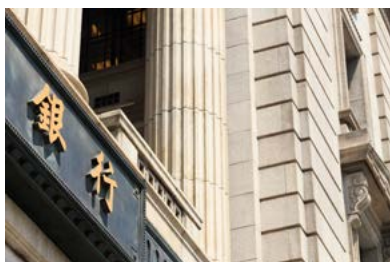
Shandong Rural Credit Union

Shandong Rural Credit Union is a financial institution that has the most business outlets, the widest scope of service and the largest capital scale in Shandong Province. The project achieved deep customization of 11 subsystems, such as data visualization, intelligent operation and maintenance, off-site inspection, dynamic environment monitoring, video conferencing, etc. It solved issues regarding different agreements and data barriers of each bank, and realized interconnection between the platforms. It also effectively strengthened the management, guidance, coordination and service of the rural commercial banks located in the province.

SMART ENERGY

The Dahua HOC Smart Energy Solution adopts the architecture of "online data, closed-loop decision-making and 4 full + 4 transformations + 2 centers" as its design concept. Combined with production process, business divisions and business scenarios of the enterprise, this solution enhances the security management of the whole production process, including monitoring and early warning of production operation, resource management and accident investigation capabilities, comprehensively improving the intelligent production capacity of the enterprise.

Solution Value

Operation Process Digitalization	Equipment Operation Digitalization
Production Process Digitalization	Converged Communication for Command & Decision-Making

Key Cases

Zhejiang Petroleum and Chemical (ZPC)

In assisting "The 13th Five-Year Plan" of ZPC, Dahua Technology conformed to the customer's development strategy and focused on actual application requirements and "4 Full" strategy. It utilized advanced technologies such as AI, machine vision, digital intelligence, cloud storage, and converged communication in order to realize three-dimensional control of the tank area, equipment area, production dispatch command center, living area and its perimeter, which improved ZPC's capabilities in production scheduling and emergency command.

China Southern Power Grid (CSPG)

Dahua Technology built a number of central station platforms for the national China Southern Power Grid, as well as provincial level grids in Guangdong, Yunnan, and Guizhou. It achieved a unified connection of video and environmental monitoring systems for substations in five Southern China provinces.it assists the China Southern Power Grid in the effective remote control of all substations covering wide areas, improving the quality of safety production management, and reducing management and operations pressure.

China Three Gorges (CTG)

Dahua Technology built a video surveillance management platform with multi-level network for CTG to achieve visual and unified control of its large-scale hydropower stations – the Three Gorges Hydropower Station, Gezhou Dam, Xiangjia Dam, Xiluodu – and many overseas hydropower projects. Dahua Technology also helped Wudongde Dam with its intelligent construction based on machine vision, as well as Xiangjia Dam's smart traffic control and management system based on big data of people and vehicles. It significantly improved CTG's production and operation in terms of intelligent management, security early warning, and resource utilization level.

Small & Medium-Sized Business

Dahua Small and Medium-Sized Businesses (SMB) is a business model that provides SMB partners (System Integrators, Resellers, Value Installers) with tailored solutions, channel cooperation, marketing, technical support, etc. in order to assist them in improving their competitiveness, increasing gross profit and promoting sustainable business development.
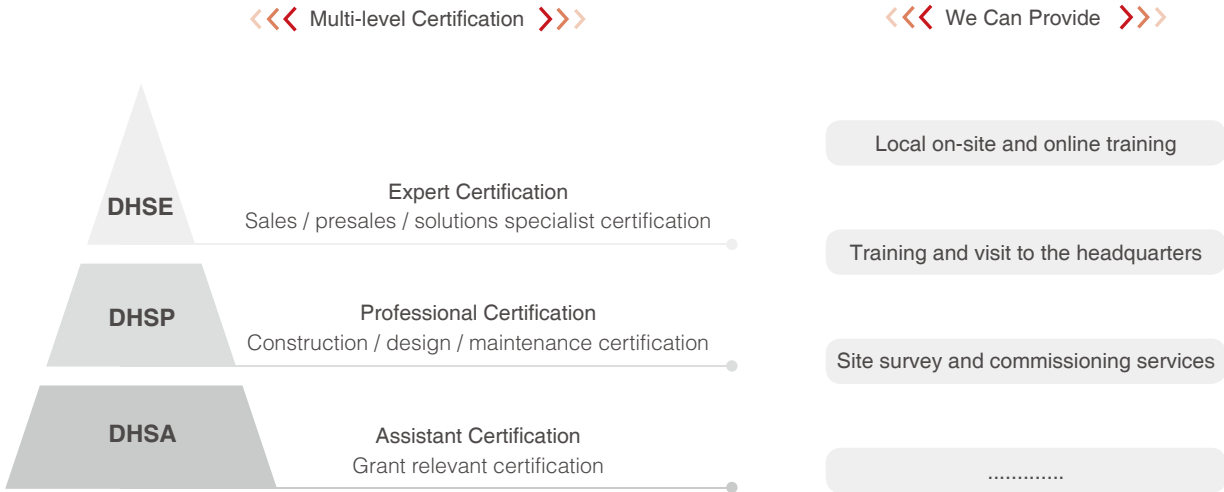
SMB Applications

Factory

Office Building

Apartment

Villa

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Retail

Museum

Gas Station

School

Casino

SMB Value

Customer Value	Partner Value
Enhances business operation & management efficiency	Easy to deliver
Reduces labor costs	Less after-sales problems
Improves the overall level of safety	High compatibility, easy to maintain

Service Ecosystem

<<< Multi-level Certification >>>

<<< We Can Provide >>>

DHSE — Expert Certification
Sales / presales / solutions specialist certification

DHSP — Professional Certification
Construction / design / maintenance certification

DHSA — Assistant Certification
Grant relevant certification

Local on-site and online training

Training and visit to the headquarters

Site survey and commissioning services

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IMOU
Enjoy Smart Life

Imou, Dahua Technology's consumer brand, serves global IoT users with a "3-in-1" business system encompassing Imou Cloud, smart devices and intelligent technologies. Designed for home and small and medium-sized business (SMB) users, Imou provides comprehensive smart IoT solutions for different scenarios. The open cloud platform that allows third-party integration makes Imou perfect for building smart IoT ecosystems, creating greater value for partners and users.

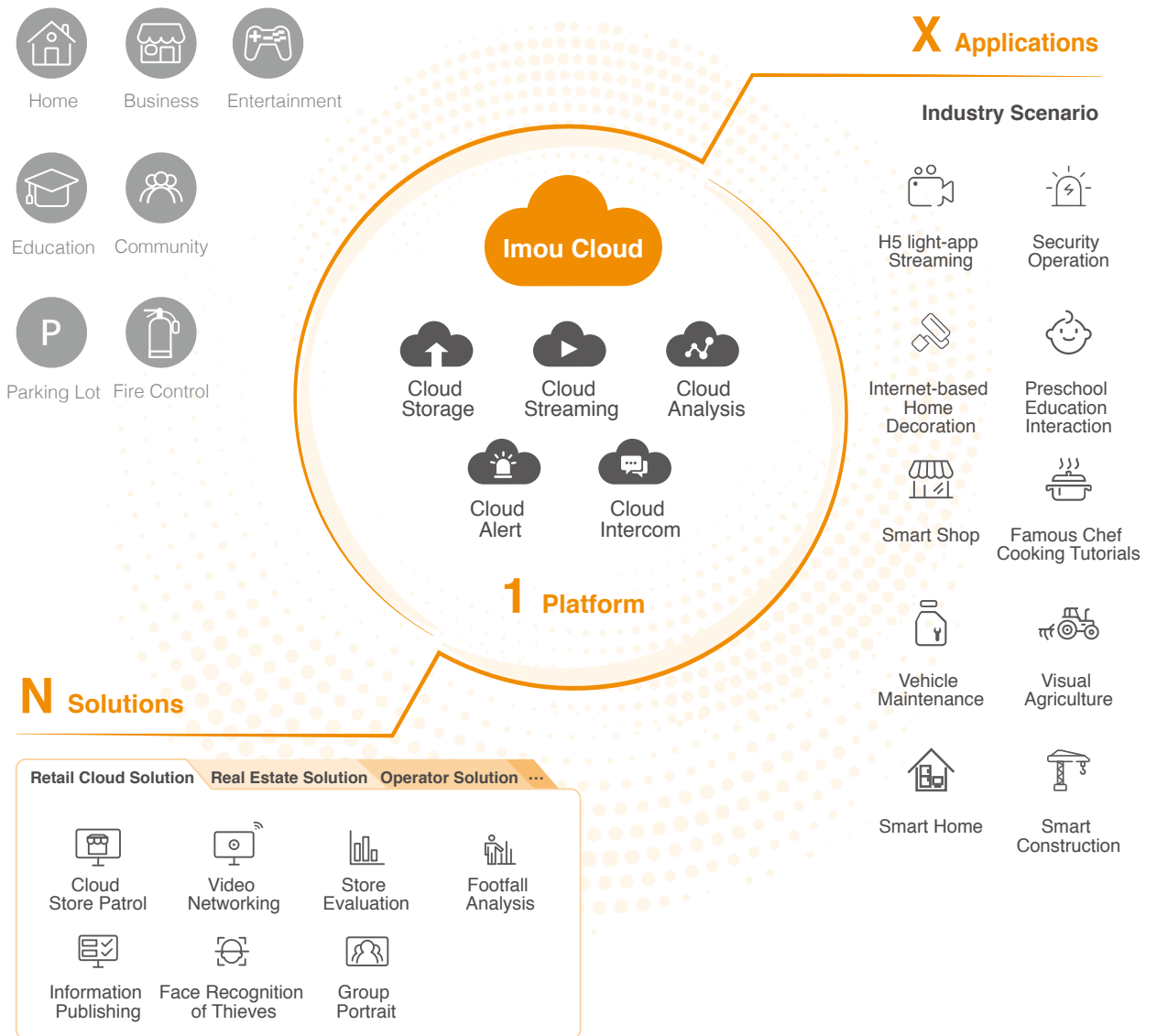## Smart Life

Household
Advocate for a smart lifestyle

Travel
Remotely monitor every corner of your home

Office
Improve work efficiency and collaboration

Imou Cloud 1+N+X Solutions

Home

Business

Entertainment

Education

Community

Parking Lot

Fire Control

X **Applications**

Industry Scenario

H5 light-app
Streaming

Security
Operation

Internet-based
Home
Decoration

Preschool
Education
Interaction

Smart Shop

Famous Chef
Cooking Tutorials

Vehicle
Maintenance

Visual
Agriculture

Smart Home

Smart
Construction

Imou Cloud

Cloud
Storage

Cloud
Streaming

Cloud
Analysis

Cloud
Alert

Cloud
Intercom

1 **Platform**

N **Solutions**

Retail Cloud Solution   **Real Estate Solution**   **Operator Solution**   ⋯

Cloud
Store Patrol

Video
Networking

Store
Evaluation

Footfall
Analysis

Information
Publishing

Face Recognition
of Thieves

Group
Portrait

CORE PRODUCTS

Smart Sensing

Video-centric integration of audio, radar, RFID, GIS, NB-IOT, Lora and other IoT technologies combines deep learning, machine vision, view structure and other intelligent technologies to achieve deep integration of perception and intelligence, creating a "full-space, all-weather, all-target, multi-dimensional" smart IoT product system with "professional, efficient and accurate" perception network for customers.

Intelligence Collaboration of End-Edge-Cloud

Guided by customer business, Dahua Technology provides multiple types, levels and modes of intelligent computing devices, and builds layer-by-layer of data intelligent processing capabilities starting from end, to edge, then to the center, creating an efficient application system for customers that covers single-scenario applications and full-service collaborations.

CORE PRODUCTS

Cybersecurity

Dahua Technology uses its deep experience and understanding of the video surveillance industry to provide users with a full range of video surveillance products and solutions that meet the GB 35114-2017 and personal data and privacy protection standards such as GDPR, include endpoint security, access security, network security, data security, and security operations, to help customers build standardized security and operation management mechanisms.

Cloud and Big Data

Taking video and IoT as the core scenario with customer business transformation and upgrade as the aim, Dahua Technology has established a storage computing network covering the cloud edge to create a dual engine of view intelligence and data intelligence, with an application enable platform to realize the big data platform of closed-loop data value chain. The offerings include cloud storage that supports four-level reliable enhancement and four-dimensional intelligent acceleration, cloud database for space-time optimization and enhanced data fusion retrieval, cloud platform for heterogeneous compatibility with cloud-side collaborative computing, cloud intelligence for network-wide multi-vendor and multi-algorithm collaboration, one-stop data computing operations platform, data governance and mining products and services.

Smart Network

A basic network bears front-end video surveillance, transmission basic network and back-end storage display control. It realizes wired and wireless integrated networking and end-to-end efficient exchange, and forms the overall competitiveness of the solution. In addition, based on professional security design, it also supports massive video transmission without lagging, HiPoE, EPoE remote power supply, wide temperature range, high reliability and other features to meet full scene flexible adaptation. It offers visual and unified network operation and maintenance management services in order to provide customers with high-quality end-to-end connection of intelligent transmission network, leading the traditional security video surveillance network into a smart network transformation.

ENABLING A SAFER SOCIETY
AND SMARTER LIVING

Dahua USA
Tel: +1 (949) 679-7777
Email: sales.usa@dahuatech.com
        support.usa@dahuatech.com

Dahua Mexico
Tel: +52 55 67231936
Email: sales.mx@dahuatech.com
        support.mx@dahuatech.com

Dahua Colombia
Tel: +571 7446110
Email: sales.co@dahuatech.com
        support.co@dahuatech.com

Dahua Brazil
Tel: +55 11 32511871
Vendas: comercial.br@dahuatech.com
Suporte Técnico: suporte.br@dahuatech.com

Dahua Perú
Tel: +511 500-8555
Email: sales.pe@dahuatech.com
        support.pe@dahuatech.com

Dahua Chile
Tel: +56 232705421
Email: sales.cl@dahuatech.com
        support.chile@dahuatech.com

Dahua Argentina
Email: project.ar@dahuatech.com

Dahua Panama
Email: sales.pa@dahuatech.com
Support: support.pa@dahuatech.com

Dahua Thailand
Tel: +66 2541 5188
Email: info.th@dahuatech.com
        hr.th@dahuatech.com

Dahua Singapore
Tel: +65 65380952
Email: sales.sg@dahuatech.com

Dahua Turkey
Email: sales.tr@dahuatech.com
        support.tr@dahuatech.com

Dahua Malaysia
Tel: +60376620731
Email: sales.my@dahuatech.com

Dahua Indonesia
Email: sales.id@dahuatech.com
        support.id@dahuatech.com

Dahua S.Korea
Tel: +82 7081618889
Email: sales.kr@dahuatech.com
        support.kr@dahuatech.com

Dahua India
Tel: +91 1244569100
Email: sales.india@dahuatech.com

Dahua Russia
Tel: 8 (499) 682-60-00
Email: info@dahuatech.com

Dahua Kazakhstan
Tel: +7 727 3110838
Email: sales.kz@dahuatech.com

Dahua VISION LLC
Tel:+998 (78) 1488666
E-mail:dh_uzbekistan@dahuatech.com

Dahua UK
Tel: +44(0)1628 613 500
Email: sales.uk@dahuatech.com

Dahua the Netherlands
Tel: +31 (0) 79 799 96 96
Email: sales.benelux@dahuatech.com

Dahua Iberia
Tel: +34 917649862
Email: sales.iberia@dahuatech.com

Dahua Italy
Tel: +39 362182681
Email: sales.italy@dahuatech.com

Dahua Germany
Tel: +49 211 20544121
Email: sales.de@dahuatech.com

Dahua France
+33 1 48 53 70 53
Email: sales.france@dahuatech.com

Dahua CEE & Nordic
Tel: +48 223957400
Email: dh.cen@dahuatech.com

Dahua Poland
Tel: +48 223957400
Email: biuro.pl@dahuatech.com

Dahua SRB
+38 1 (11) 4429999
Email: dh.srb@dahuatech.com

Dahua Denmark
Email: Nordic.ne@dahuatech.com

Dahua Hungary
Tel: +36 17899852
Email: sales.hu@dahuatech.com

Dahua Bulgaria
Tel: +35929950013
Email: support.bg@dahuatech.com

Dahua SRL
Email:marketing.ro@dahuatech.com

Dahua Czech
Tel: +420 225 986 001
Email: admin.cz@dahuatech.com

Dahua S. Africa
Email: sales.za@dahuatech.com

Dahua Australia
Tel: +61 299285200
Email: sales.oc@dahuatech.com

Dahua Middle East
Tel: +971 48815300
Email: sales.me@dahuatech.com
        info.me@dahuatech.com

Ver. 2, Aug. 2020

DAHUA TECHNOLOGY

No.1199 Bin'an Road, Binjiang District, Hangzhou, China. 310053
Tel: +86-571-87688883   Fax: +86-571-87688815
Email: overseas@dahuatech.com
www.dahuasecurity.com