

HikCentral Professional

HikCentral Professional is a software platform provided by Hikvision for integrating and managing security systems. It is designed to meet a variety of security challenges on a single platform. With HikCentral Professional, you can manage multiple individual systems with ease, such as video security, access control, security alarms, and more, as well as explore cross-system functionalities.

Daily operations become more efficient while protection of people and property improve all around. Users of all kinds are making smarter decisions.



Key Feature

Light and Efficient

- Lightweight architecture features reduced consumption of system resources
- Capable of managing multiple systems of varying sizes with consistent efficiency

Unified and Flexible

- Supports combining various application plug-ins under a unified, on-demand architecture for collaboration across business segments
- New plug-ins can be continuously developed to meet new business needs

Integrated and Open

- Compatible with virtually all Hikvision products and their abundance of applications, including deep-learning-based analytics and statistics
- Open architecture permits easy integration with third-party systems and hardware

• Features of Main Modules

Module	Features
Video	<ul style="list-style-type: none"> ● Efficient and comprehensive video security ● Quick incident search and location, convenient event search, and quick run-through of video ● Video export as evidence ● Low bandwidth network adaptability ● Reliable and flexible storage
Access Control	<ul style="list-style-type: none"> ● Comprehensive and flexible access management methods ● Advanced access strategies for sensitive areas ● Convenient employee badge design and printing ● Clear step-by-step guidance ● Remote personnel registration ● Automatically lock or unlock doors ● Keep doors in a remain unlocked status during an emergency ● Easily count and verify everyone's safety ● Opening door via Bluetooth and NFC
Visitor	<ul style="list-style-type: none"> ● Digitalized visitor management ● Visitor registration in advance ● Pre-defined access permissions and traceable records ● A Watchlist function along with personalized design and printing of badges
Vehicle	<ul style="list-style-type: none"> ● Flexible and efficient entrance & exit management ● Improved parking experience for drivers ● Self-service parking query ● Flexible billing ● Intuitive and efficient parking operation analysis and transaction analysis reports
On-Board Monitoring	<ul style="list-style-type: none"> ● Efficient vehicle monitoring for quick response ● Reliable archive management ● Customized reports for enhanced operational efficiency
Alarm Detection	<ul style="list-style-type: none"> ● Centrally manage various alarm sources ● Real-time display of all kinds of alarms ● Flexible linkage ● Automatic audio alarms
Intelligent Analysis	<ul style="list-style-type: none"> ● The video-based intelligent analysis dashboard enables flexible and extensible digital applications ● Smart commercial analyses
Commercial Display	<ul style="list-style-type: none"> ● Manage and configure content for digital signage in an intuitive manner ● Pre-installed program templates ● All programs are created visually
Time & Attendance	<ul style="list-style-type: none"> ● Flexible attendance rule-setting ● Diverse attendance reports and customizable templates ● Easy integration with third-party payroll systems ● Supports employees searching for attendance results and submitting applications for correction
Portable Enforcement	<ul style="list-style-type: none"> ● Quick retrieval of important recordings, long-term backups, and file-level permission management ● Automatic detection and addition of portable devices through dock stations, and detailed statistical logs for personnel and equipment use
Smart Wall	<ul style="list-style-type: none"> ● Display videos on the wall ● Video auto-switch and scheduled playback ● Alarm pop-up on smart wall. The alarm video will be automatically played in a pop-up window on the video wall to notify the operator
Parking Lot Management	<ul style="list-style-type: none"> ● Efficient entrance & exit management with access rules for vehicles, integration with ANPR cameras, and touch-free, non-stop vehicle authentication to help reduce rush hour

	<p>congestion</p> <ul style="list-style-type: none"> ● Improved parking experience with guidance screens and displays to find vacant spaces ● Flexible charging options including manual charge and prepayment
Evidence Management	<ul style="list-style-type: none"> ● Convenient information collection with multi-clients (Mobile Client, Web Client, Control Client) for uploading files ● Unified management of cross-service evidence files, including videos, pictures, audios, and documents uploading in the daily operation ● Long-term backup, efficient retrieval: evidence classification, archiving, retrieval, export, one-stop management
AR	<ul style="list-style-type: none"> ● Easily access key cameras without losing the global view ● Quick resource location through simple "Click" and "Filter" actions ● Efficient process for quick event handling from notification to acknowledgment
Patrol Management	<ul style="list-style-type: none"> ● Design patrol schedules and routes effortlessly using an intuitive e-map interface ● Security staff check in using access control devices with all data automatically uploaded to the software ● Report anomalies during the patrol to the center via the Mobile Client ● Trigger alarms instantly if unauthorized individuals attempt to conduct patrol ● Comprehensive patrol reports enable managers to assess performance effectively
Security Inspection	<ul style="list-style-type: none"> ● Identify a wide range of prohibited items timely and accurately, reducing labor costs and security threats ● Simplify centralized management with real-time detection results, alarm information, and live view
Emergency Mustering	<ul style="list-style-type: none"> ● Instant response to emergencies with a click to trigger the emergency automatically or manually ● Enhanced evacuation experience with cycled broadcast of evacuation messages through IP speakers and remaining doors open along the escape route for quick assembly at muster points ● Efficient confirmation of personnel safety status at muster points, including counting and verification of everyone's presence and checking the most recent locations of missing individuals
Remote Site Management (RSM)	<ul style="list-style-type: none"> ● Manage multi-site systems in one place, providing a unified view of different resources, and all related events and alarms across sites. ● Multi-site solutions in terms of the number of devices, remote sites and concurrent events to be handled by the system
Maintenance	<ul style="list-style-type: none"> ● Visualized network and device topology and alarm notifications ● Logs are available for event trackback and evidence ● Check all health status with one click or according to a preset schedule ● Clearly see the risks and exceptions
Parcel Tracking	<ul style="list-style-type: none"> ● Easy Identification & Tracking of Parcels by linking the data from barcode systems and video systems ● Tracking through the Conveyor belt systems with smart code reader and conventional cameras ● Video Evidence Management: support Video Record Export (MP4/AVI), support Scanning Record Export by Check Point/Parcel ID/timestamp)
Dock Management	<ul style="list-style-type: none"> ● Real-time analysis loading and unloading rate, quickly locate and playback the processes ● Vehicle dispatch process: dock reservation, ANPR, LED screen displaying queuing info, speaker for audio broadcast ● Real-time and visualized display of dock status on the Dock Map ● Statistics of vehicle operation time, waiting time, etc. by the dashboard
Canteen Consumption	<ul style="list-style-type: none"> ● Non-contact payment, improve efficiency and upgrade experience ● Diverse consumption mode applicable to different scenarios ● Unified management enables high efficiency on management of large plant canteens

Software Specification

The following table shows the maximum performance of the SYS (System Management Server). For other detailed data and performance, refer to *Software Requirements and Performance*.

Features		Maximum Performance
General		
Manageable Resource	Encoding Devices	5,000 Note: No more than 1,024 access control devices or elevator control devices, 128 security radars, 32 visitor terminals, 1,000 dock stations, 128 network transmission devices, , 40 entrances&exits, and 4 UVSSs are allowed.
	Encoding Devices Supporting ONVIF Protocol	
	Access Control Devices	
	Elevator Control Devices	
	Video Intercom Devices	
	Visitor Terminals	
	Security Control Panels and Panic Alarm Devices	
	IP Speakers	
	Query Terminals	
	Guidance Terminals	
	Parking Lot Screens	
	Entrance/Exit Stations	
	On-Board Devices	
	Security Inspection Devices	
	UVSSs	
	Body Cameras	
	Dock Stations	
	Network Transmission Devices	
	Digital Signage Terminals	
	Interactive Flat Panels	
	Fire Protection Devices	
	Decoding Devices	
	BACnet Devices	
	Modbus Devices	
	Payment Terminals	
	Portable Code Scanner	
	Scanning Devices	
	Intelligent Analysis Server	64
	Recording Servers	64
	Streaming Servers	64
	Cameras	10,000 With RSM: 100,000
	Maximum Number of Fisheye Cameras	10,000
	Maximum Number of Cameras for People Counting	
	Alarm Inputs (excluding security control panels and panic alarm devices)	5,000
	Alarm Inputs of Security Control Devices	10,000
Security Control Partitions (Areas)	2,048	
Alarm Outputs	3,000	
Radar PTZ Cameras	30	
DS-5600 Series Face Recognition Terminals When Applied with Hikvision Turnstiles	32	
ANPR Cameras	3,000	
People Counting Cameras	Recommended: 3,000	
Heat Map Cameras	Recommended: 1,024	
Queue Management Cameras	Recommended: 3,000	
Thermal Cameras	Recommended: 20 ^①	
Cameras per Area	256	
Alarm Inputs per Area		

	Alarm Outputs per Area	
Event	Event Rules	10,000
	Event Receiving Without Pictures	100/s
	Event Receiving with Pictures (Directly Stored in Recording Servers)	100/s
	Event Receiving with Pictures (Stored in SYS, or transmitted to recording servers from SYS)	100/s
	Events Sent to Clients <i>*The clients include Web Client, Control Clients and Mobile Clients.</i>	<ul style="list-style-type: none"> ● Web Client: 20/s (with picture); 40/s (without picture); ● Control Client: 120 /s. ● 100 Clients/s
	Combined Alarm	10/s
	User-Defined Events	10,000
User and Role	Concurrent Accesses via Web Clients and Control Clients	100
	Concurrent Accesses via Mobile Clients	100
	Users	3,000
	Roles	10,000
Person	Persons	100,000
	Total Credentials (Card + Fingerprint)	250,000
	Cards	500,000
	Fingerprints	400,000
	Irises	200,000
	Profile Pictures	1,000,000
	Departments	3,000
	Department Hierarchies	10
	Size of a Profile Picture	300 KB
	Total Size of Profile Pictures	300 GB
	Resigned Persons	100,000
	Resignation Types	100
Data Storage	Data Retention Period	Stored for 3 Years
	People Counting	5 million each year
	Heat Map	0.25 million each year
	ANPR Records	60 million each year
	Events	
	Alarms	1.4 billion each year
	Access Records	
	Attendance Records	
	Visitor Records	10 million each year
	Operation Logs	5 million each year
	Service Information Logs	
	Service Error Logs	60 million each year
Recording Tags		
Video & Intelligent Analysis		
Video Security	Recording Schedule	30,000
	Recording Schedule Template	200
	Users for Double Authentications	50
Intelligent Recognition	Persons for Intelligent Recognition	1000,000
	Face Comparison Groups	64
	Intelligent Analysis Groups	1,000
Intelligent Analysis	Total Stores	1,000
	Total Analysis Group	1000
AR Monitoring	AR Scenes	100
	Plans	512
	Tags for Each Scene	200

	Tag Groups for Each Scene	100
Evidence Management	Cases	100,000
	Evidence Files	100,000
	Smart Walls	32
	Network Keyboard	8
	Views	1,000
	View Groups	100
	Views in One View Group	10
	Cameras in One View	256
	Cameras in One Window of Auto-Switch	20
	Windows of an Auto-Switch	16
	View Group of an Auto-Switch	1
Streaming Server	Video Input Bandwidth per Streaming Server	200 × 2 Mbps
	Video Output Bandwidth per Streaming Server	200 × 2 Mbps
Access Control & Time and Attendance & Visitor		
Access Control	Access Points (Doors + Floors)	1,024
	Access Levels	512
	Access Group	512
	Access Schedules	32
	Templates for Card Printing	32
Time and Attendance	Persons for Time and Attendance	50,000
	Schedules	128
	Break Timetable	128
	Custom Rules for T&A Status on Device	128
	Pay Code (including overtime types and leave types)	128
	Approval Roles	100
	Approval Flows	1,000
Concurrent Login of Employees via Client	500	
Visitor Management	Visitors	100,000
	Visitor Check-In or Reservation Records	100,000
	Visitor Email Templates	20
	Entities in Watch List	10,000
	Card Template	20
	WhatsApp Template	20
Vehicle and Parking Management		
	Vehicles per List	5,000
	Vehicles	500,000
	Custom Vehicle Types	10
	UVSSs	4
	Vehicle Undercarriage Pictures	3,000
	Storage of ANPR Alarm Without Pictures	1,000/s
	Storage of ANPR Alarm with Picture	20/s (Stored in SYS) 100/s (Stored in Recording Server)
	Parking Lots	10
	Lanes	Total: 40 In One Parking Lot: 32
	Parking Spaces	Total: 3,000 In One Floor: 1,024
	Floors in All Parking Lots	128
	Cards Linked with Vehicles	250,000
	Temporary Cards in One Parking Lot	10,000
	Vehicle Passing Frequency in Each Lane	1 Vehicle/s
On-Board Monitoring		
	GPS Information Report	Report a GPS information to the platform every 5s, totally 1,000 GPS information can be sent to the

	platform per second.
Fence Rules for One Vehicle	4
Deviation Rules for One Vehicle	4
Vehicles Can Be Located in One Client	64
Retention Period of GPS Data	1 Year
Retention Period of Statistics Data	3 Years
Maximum Number of Drivers	10,000
Maximum Number of Driving Routes	1,000
Portable Enforcement	
GPS Report	250/s
Alarm Receiving	100/s
Intercom Groups	128
Persons in One Intercom Group	100
Persons Performing Group Intercom Simultaneously	<ul style="list-style-type: none"> ● By streaming server of HCP: 400 ● By third-party streaming server: 600
Commercial Display	
Materials	10,000
Programs	2,000
Schedules	1,000
Materials Released Each Time	64
Video Walls	512
Applications for Interactive Flat Panel	1,000
Security Inspection	
Analyzers	8
Walk-Through Metal Detectors	64
Security Inspection Channels	1,000
Broadcast	
Speaker Unit	128
Broadcast Group	128
Media Libraries	100
Patrol	
Maximum Number of Shifts of a Single Route	8
<p>①: This recommended value refers to the number of thermal cameras connected to the system directly. It depends on the maximum performance (data processing and storage) in the situation when the managed thermal cameras uploading temperature data to the system. For thermal cameras connected to the system via NVR, there is no such limit.</p>	

System Requirement

* For high stability and good performance, the following system requirements must be met.

OS for HikCentral Professional Server	<p>Microsoft® Windows 11 64-bit Microsoft® Windows 10 64-bit Microsoft® Windows Server 2019 64-bit Microsoft® Windows Server 2016 64-bit Microsoft® Windows Server 2012 R2 64-bit Microsoft® Windows Server 2012 64-bit Microsoft® Windows Server 2022</p> <p><i>*For Windows Server 2012 R2, make sure it is installed with the rollup (KB2919355) updated in April, 2014.</i></p>
OS for Control Client	<p>Microsoft® Windows 11 64-bit Microsoft® Windows 10 64-bit Microsoft® Windows Server 2019 64-bit Microsoft® Windows Server 2016 64-bit Microsoft® Windows Server 2012 R2 64-bit Microsoft® Windows Server 2012 64-bit Microsoft® Windows Server 2022</p> <p><i>*For Windows Server 2012 R2, make sure it is installed with the rollup (KB2919355) updated in April, 2014.</i></p>
Browser Version	<p>Google Chrome® 114 and later Firefox® 114 and later Safari® 16.6 and later Microsoft® Edge 114 and later Internet Explorer® 11 and later</p>
Database	PostgreSQL V16.1
OS for Mobile Client	<p>iOS 12.0 and later Android 6.0 and later</p>
Virtual Machine	<p>VMware® ESXi™ 6.x, ESXi™ 7.x Microsoft® Hyper-V with Windows Server 2012/2012 R2/2016 (64-bit)</p> <p><i>*The Control Client cannot run on the virtual machine. *Refer to the Deployment Guide of HikCentral Professional on VMware Virtual Machines for how the streaming server running on the virtual machine. *Virtual server migration is not supported.</i></p>

Recommended Hardware Specification



Processor	E-2324G(4Cores/8MB/4T/ 3.1-4.6GHz/65W)	
Memory	1 × 16GB up to 2666 MT/s DDR4 UDIMM	
Storage Controllers	Internal Controllers: SAS_H355	
Drive Bays	1T 7.2K SATA×2	
Power Supplies	Single 450W (Bronze) power supply	
Dimensions	Form Factor: Rack (1U) Chassis Width: 434.00mm (17.08 in) Chassis Depth: 595.63mm (23.45 in) (3.5" HDD) Note: These dimensions do not include: bezel, redundant PSU	
Dimensions with Package (W × D × H)	750 mm × 614 mm × 259 mm (29.53" × 24.17" × 10.2")	
Net Weight	12.2 kg	
Weight with Package	18.5 kg	
Embedded NIC	2 x 1GbE LOM Network Interface Controller (NIC) ports	
Device Access	Front Ports: 1x USB 2.0, 1 x iDRAC micro USB 2.0 management port Rear Ports: 2 x USB 3.0, VGA, serial connector	
Embedded Management	iDRAC9 with Lifecycle Controller iDRAC Direct DRAC RESTful API with Redfish	
Integrations and Connections	Integrations: Microsoft® System Center VMware® vCenter™ BMC Truesight (available from BMC) Red Hat Ansible	Connections: Nagios Core & Nagios XI Micro Focus Operations Manager i (OMi) IBM Tivoli Netcool/OMNibus
Operating Systems	Certify XenServer Citrix® XenServer® Microsoft Windows Server® with Hyper-V Red Hat® Enterprise Linux Ubuntu Server This model is installed with Microsoft Windows Server® 2019 multilingual operating system.	SUSE® Linux Enterprise Server VMware® ESXi

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