# **HIKVISION**®

### **HikCentral Professional**

HikCentral Professional is an integrated security software designed to meet versatile security challenges in one intuitive platform: from managing individual systems such as video security, access control, intrusion alarm, etc., to collaborating multiple systems under a unified architecture. While protecting people and property, it makes daily operations more efficient, and helps various kinds of users make smarter decisions.



## **Key Feature**

#### **Home Page**

- Providing three predefined Home page modes on Web Client, including system installation and management mode, security control and management mode, and attendance management mode
- Supports customizing Home page mode on Web Client
- Supports customizing control panel on Control Client
- Supports switching Home page mode for visualization and non-visualization management
- Providing different report dashboards for resource status, intelligent analysis results, access records, vacant parking spaces, alarms, etc., on the Home page of Web Client

#### Wizard

• Providing wizards for video management, access control, vehicle management, alarm detection, digital signage management, and time & attendance on Web Client

#### Live View and Playback

- Up to 256 channels live view simultaneously
- Custom window division configurable
- Viewing maps and real-time events during live view and playback
- Stream type self-adaptive, transcoded playback, and frame- extracting playback
- Fisheye dewarping of multi-channel
- Controlling PTZ in visualization way
- Supports decoding stream from cameras with high-definition, such as PanoVu series camera

#### **Visual Tracking**

#### **Recording and Storage**

- Recording schedule for continuous recording, event recording and command recording
- Storing videos on encoding devices, Hybrid SANs, cloud storage servers, pStors
- Providing main storage and auxiliary storage
- Providing video copy-back
- Storing event and alarm pictures on NVRs, Hybrid SANs, cloud storage servers, pStors, or SYS
- Supports search of VCA event related videos, video footages, and event triggered video footages.

#### **Event and Alarm Management**

- Camera linkage, alarm pop-up window and multiple linkage actions
- Multiple events for video security, access control, resource group, resource maintenance, etc.
- Supports adding combined alarms in a visualization way





#### Access Control, Elevator Control, and Video Intercom

- Setting schedules for free access status and access forbidden status of doors or floors
- Supports multiple access modes for both card reader authentication and person authentication
- Supports assigning an access level to persons, assigning access levels to persons, assigning access levels to person groups, and assigning access levels to an access group
- Supports advanced functions such as multi-factor authentication, anti-passback, and multi-door interlocking
- Controlling door or floor status in real-time
- Calling indoor station by the Control Client
- Calling the platform by door station and indoor station, and answering the call on the Control Client or Mobile Client
- Supports setting card templates and printing cards
- Supports storing access data of devices supporting ISUP to the local storage

#### **Person and Visitor Management**

- Getting person information from added devices
- Provides multiple types of credentials, including card number, face, and fingerprint, for composite authentications
- Visitor reservation, check-in and check-out
- Supports enabling the authentication via password (PIN code) on the Web Client

#### **Security Control**

- Real-time alarm management for added security control panels
- Adding zone as hot spot on E-map and viewing the video of the linked camera
- Event and alarm linkage with added cameras, including pop-up live view, captured picture
- Subscribing the events that the Control Client can display in real-time
- Acknowledging the received alarm on the Control Client

#### **Time and Attendance**

- Setting different attendance rules for various scenarios, such as normal shift and man-hour shift
- Customizing overtime levels and setting corresponding work hour rate
- Supports assigning shift schedule to person group or person(s), or adding temporary schedule
- Supports multiple types of reports according to different needs and sending reports to specified emails regularly
- Customizing attendance reports
- Supports setting calendar types, including Gregorian Calendar, Thai Calendar and Nepali Calendar

#### **Temperature Screening**

- Displaying the skin-temperature and whether wearing a mask or not about the recognized persons in real time
- Triggering events and alarms when detects abnormal temperature and no mask worn
- Viewing reports about skin-surface temperature and mask-wearing

#### Face and Body Recognition

- Displaying the information of the recognized persons in real-time
- Searching history records of recognized persons, including searching in captured pictures, searching matched persons, searching by features of persons, searching by picture, and searching frequently or rarely appeared persons
- Supports generating movement patterns for matched persons and playing patterns on the map.

#### **Intelligent Analysis**

- Supports setting resource groups and analyzing data by different groups
- Supports intelligent analysis reports including people counting, people density analysis, queue analysis, heat analysis, pathway analysis, person feature analysis, temperature analysis, and vehicle analysis
- Displaying the number of people in specified regions in real-time



#### Vehicle and Parking Management

- Managing parking lots, entrances and exits, and lanes.
- Supports linking guidance screens and terminals with parking lot for information display and parking guidance
- Setting entry & exit rules for registered vehicles as well as temporary vehicles
- Managing parking fee rules
- Supports parking space monitoring
- Analyzing operation and transaction data in parking lots and generating reports
- Entrance and exit control based on license plate recognition, card, or video intercom
- Viewing real-time and history vehicle information and controlling barrier gate manually on the Control Client

#### **Digital Signage**

- Supports static materials, including picture, video, audio, TXT file, document, static web page, Android APP, etc.
- Supports dynamic materials, including Streaming Server, network camera, URL, etc.
- Supports uploading up to 10,000 material file. Each file size cannot exceed 4 GB
- Creating normal program (including single-sided screen program and double-sided screen program), attendance program, and people counting & temperature screening program
- Managing up to 2,000 programs. Program's resolution cannot exceed 4K
- Supports creating a loop schedule, customizing a schedule, or creating schedule by day, by week, or by default
- Managing up to 1,000 schedules
- Supports cut-in program, and cut-in message

#### **Third-Party Integration**

- Sending the original attendance data to a third-party database (Microsoft<sup>®</sup> SQL Server, MySQL, PostgreSQL, or Oracle), thus the client can access third-party T&A and payment system
- Supports dumping access records as the CVS or TXT files to the local storage
- Supports setting table name, table fields, and mode for the third-party database
- Supports setting multiple rules for dumping access records

#### **Network Management**

- Managing network transmission devices such as switches, displaying the network connection and hierarchical relationship of the managed resources by a topology
- Viewing the network details between the device nodes in the topology, such as downstream and upstream rate, port information, etc. and checking the connection path
- Exporting the topology and abnormal data to check the device connection status and health status

#### **Security Inspection**

- Managing analyzers and walk-through metal detectors
- Viewing the real-time X-ray videos during the security inspection
- Searching for package and metal detection records and generating reports

#### **IP Speaker and Broadcast**

- Managing IP speakers and speaker units
- Supports configuring live broadcast and recording
- Supports speaking and playing audio files
- Supports adding scheduled broadcast tasks
- Supports setting the speaker unit linkage for alarms



## Software Specification

The following table shows the maximum performance of the HikCentral Professional server. For other detailed data and performance, refer to *Software Requirements & Hardware Performance*.

	Features	Maximum Performance
	Cameras	General Performance <sup>①</sup> : 3,000 High Performance <sup>②</sup> : 10,000 High Performance <sup>②</sup> (RSM): 100,000
	Managed Device IP Addresses *Including Encoding Devices, Access Control Devices, Elevator Control Devices, Security Control Devices, Digital Signage Terminals, Remote Sites, and Guidance Terminals	General Performance: 1,024 $^{(1)}$ High Performance: 2,048 $^{(2)}$
	Video Intercom Devices	5,000
	IP Speakers	128
	Guidance Screens	512
	Dock Stations	1,500
	Network Transmission Devices	128
	Security Audit Server	8
	DeepinMind Server	64
	Recording Servers	64
Devices and Resources	Streaming Servers	64
	Areas	3,000
	Alarm Inputs	5,000
	Alarm Outputs	3,000
	Security Radars and Radar PTZ Cameras	30
	Zones of Security Control Panels	2,048
	Security Control Partitions (Areas)	256
	DS-5600 Series Face Recognition Terminals When Applied with Hikvision Turnstiles	32
	ANPR Cameras	3,000
	People Counting Cameras	Recommended: 300
	Heat Map Cameras	Recommended: 70
	Thermal Cameras	Recommended: 20 <sup>③</sup>
	Queue Management Cameras	Recommended: 300
	Cameras per Área	256
	Alarm Inputs per Area	256
	Alarm Outputs per Area	256
Recording	Recording Schedule	General Performance <sup>①</sup> : 3,000 High Performance <sup>②</sup> : 30,000
0	Recording Schedule Template	200
	Event and Alarm Rules	General Performance <sup>①</sup> : 3,000 High Performance <sup>②</sup> : 10,000
	Storage of Events or Alarms Without Pictures	General Performance <sup>①</sup> : 100/s <sup>①</sup> High Performance <sup>②</sup> : 1,000/s
Event & Alarm	Storage of Events or Alarms with Pictures	20/s (Stored in SYS) 80/s (Stored in Recording Server)
	Events or Alarms Sent to Clients	120/s
	*The clients include Control Clients and Mobile Clients.	100 Clients/s
	Combined Alarm	10/s
	User-Defined Events	10,000
	Scheduled Report Rules of Event and Alarm	100
Reports	Event or Alarm Rules in One Event/Alarm Report Rule	32



		Descurses Calested in One Denast	
		Resources Selected in One Report	20
		*With this limitation, you can generate a neat and clear	20
		report via the Control Client and it costs less time.	
		Data Retention Period	Stored for 3 Years
		People Counting	5 million
		Heat Map	0.25 million
		ANPR Records	60 million
		Events	60 million
		Alarms	60 million
	Data Storage	Access Records	1.4 billion
		Attendance Records	55 million
		Visitor Records	10 million
		Operation Logs	5 million
		Service Information Logs	5 million
		Service Error Logs	5 million
		Recording Tags	60 million
		Concurrent Accesses via Web Clients and Control Clients	100
		Concurrent Accesses via Mobile Clients	100
	Users and Roles	Users	3,000
		Roles	3,000
		Users for Double Authentications	50
		Vehicles per List	5,000
		Vehicles	
			500,000
		Custom Vehicle Types	10
		Under Vehicle Surveillance Systems (UVSSs)	4
		Vehicle Undercarriage Pictures	3,000
		Storage of ANPR Alarm Without Pictures	General Performance <sup>(1)</sup> :400/s High Performance <sup>(2)</sup> : 1,000/s
	Vehicle and Parking	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
-		Face Pictures for Comparison	General Performance <sup>①</sup> : 10,000
			High Performance <sup>(2)</sup> : 1,000,000
		Face Comparison Groups	64
	Face Comparison	Persons in One Face Comparison Group	1,000,000
			General Performance <sup>①</sup> :400/s
		Storage of Face Comparison Events Without Pictures	High Performance <sup>(2)</sup> : 1,000/s
		Standard (Ease Comparing Franktauith Distance	
		Storage of Face Comparison Events with Pictures	100/s (Stored in Recording Server)
		Person Group	3,000
	Person	Person Group Hierarchies	10
		Size of a Profile Picture	300 KB
		Total Size of Profile Pictures	300 GB
		Persons with Credentials for Access Control	50,000
		Total Credentials (Card + Fingerprint)	250,000
		Cards	250,000
	Access Control	Fingerprints	100,000
		Profiles	50,000
		Access Points (Doors + Floors)	1,024
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	Access Levels	512		
	Access Schedules	32		
	Templates for Card Printing	32		
	Visitors	20,000		
Visitor	Visitor Check-In or Reservation Records	100,000		
	Visitor Email Templates	20		
	Persons for Time and Attendance	10,000		
	Shift Schedules	128		
	Major Leave Types	64		
Time and Attendance	Minor Leave Types of One Major Type	128		
	Holidays	32		
	Break Timetable	128		
	Custom Rules for T&A Status on Device	128		
	Decoding Devices	32		
	Smart Walls	32		
Constant Marin	Views	1,000		
Smart Wall	View Groups	100		
	Views in One View Group	10		
	Cameras in One View	256		
	Intelligent Analysis Groups	1,000		
Intelligent	Resources in One Group	64		
Recognition	Persons for Intelligent Recognition	1000,000		
	Materials	10,000		
Disital Circus	Programs	2,000		
Digital Signage	Schedules	1,000		
	Release Records	1,000		
	Analyzers	General Performance <sup>①</sup> : 32		
		High Performance <sup>②</sup> : 64		
Convrite Increation	Walk-Through Metal Detectors	General Performance <sup>①</sup> : 64		
Security Inspection		High Performance <sup>②</sup> : 128		
	Security Inspection Channels	General Performance <sup>①</sup> : 500		
		High Performance <sup>②</sup> : 1,000		
Broadcast	Broadcast Group	128		
DroadCast	Media Libraries	100		
Streaming Server's Maximum Performance				
Video Input Bandwidth	per Streaming Server	200 × 2 Mbps		
Video Output Bandwidth per Streaming Server		200 × 2 Mbps		

The general performance requires Intel<sup>®</sup> Xeon<sup>®</sup> E-2124 or higher.
The high performance requires Intel<sup>®</sup> Xeon<sup>®</sup> E5-2620 or higher.

③: 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 limitation.



# Hardware Specification



Processor	Intel <sup>®</sup> Xeon <sup>®</sup> E-2124	
Memory	16G DDR4 DIMM slots, Supports UDIMM, up to 2666 MT/s, 64GB Max.	
	Supports registered ECC	
	Internal Controllers: SAS_H330	
	Software RAID: PERC S140	
Storage Controllers	External HBAs: 12Gbps SAS HBA (non-RAID)	
	Boot Optimized Storage Subsystem: 2x M.2 240GB (RAID 1 or No RAID), 1x M.2 240GB (No	
	RAID Only)	
Drive Bays	1T 7.2K SATA×2	
Power Supplies	Single 250W (Bronze) power supply	
	Form Factor: Rack (1U)	
Dimensions	Chassis Width: 434.00mm (17.08 in)	
Dimensions	Chassis Depth: 595.63mm (23.45 in) (3.5"HHD)	
	Note: These dimensions do not include: bezel, redundant PSU	
Dimensions with Package	750 mm × 614 mm × 259 mm	
$(W \times D \times H)$	(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	
	iDRAC9 with Lifecycle Controller	
Embedded Management	iDRAC Direct	
	DRAC RESTful API with Redfish	
	Integrations:	Connections:
	Microsoft <sup>®</sup> System Center	Nagios Core & Nagios XI
Integrations and Connections	VMware <sup>®</sup> vCenter <sup>™</sup>	Micro Focus Operations Manager i (OMi)
	BMC Truesight (available from BMC)	IBM Tivoli Netcool/OMNIbus
	Red Hat Ansible	
	Certify XenServer Citrix® XenServer®	
Operating Systems	Microsoft Windows Server <sup>®</sup> with Hyper-V	
operating systems	<b>Note:</b> This model is installed with Microsoft Windows Server <sup>®</sup> 2016 multilingual operating	
	system.	
Virtual Machines	VMware® ESXi	

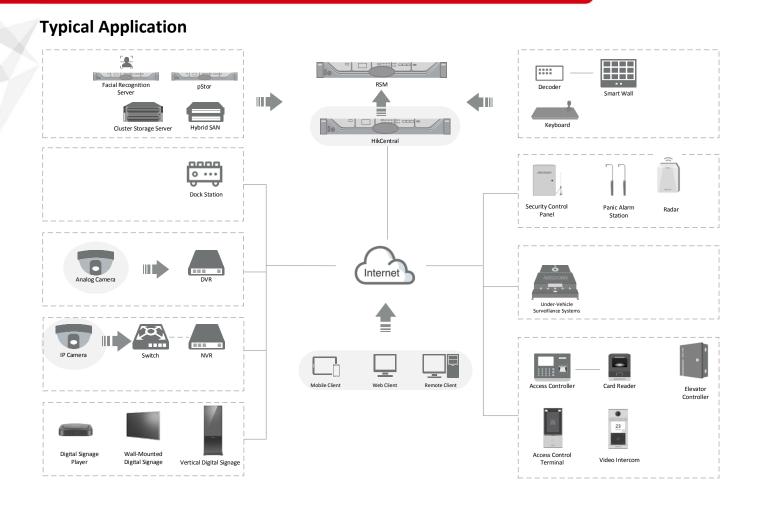


## System Requirement

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

Feature	Description	
	Microsoft <sup>®</sup> Windows 7 SP1 (64-bit)	
	Microsoft <sup>®</sup> Windows 8.1 (64-bit)	
	Microsoft <sup>®</sup> Windows 10 (64-bit)	
	Microsoft <sup>®</sup> Windows Server 2008 R2 SP1 (64-bit)	
OS for HikCentral Professional	Microsoft <sup>®</sup> Windows Server 2012 (64-bit)	
Server	Microsoft <sup>®</sup> Windows Server 2012 R2 (64-bit)	
	Microsoft <sup>®</sup> Windows Server 2016 (64-bit)	
	Microsoft <sup>®</sup> Windows Server 2019 (64-bit)	
	*For Windows 8.1 and Windows Server 2012 R2, make sure it is installed with the rollup (KB2919355)	
	updated in April, 2014.	
	Microsoft <sup>®</sup> Windows 7 SP1 (32/64-bit)	
	Microsoft <sup>®</sup> Windows 8.1 (32/64-bit)	
	Microsoft <sup>®</sup> Windows 10 (64-bit)	
	Microsoft <sup>®</sup> Windows Server 2008 R2 SP1 (64-bit)	
	Microsoft <sup>®</sup> Windows Server 2012 (64-bit)	
OS for Control Client	Microsoft <sup>®</sup> Windows Server 2012 R2 (64-bit)	
	Microsoft <sup>®</sup> Windows Server 2016 (64-bit)	
	Microsoft <sup>®</sup> Windows Server 2019 (64-bit)	
	*For Windows 8.1 and Windows Server 2012 R2, make sure it is installed with the rollup (KB2919355)	
	updated in April, 2014.	
OS for Visitor Terminal	Android 7.1 and later	
	Internet Explorer <sup>®</sup> 11 and above	
	Google Chrome <sup>®</sup> 61 and above	
Browser Version	Firefox <sup>®</sup> 57 and above	
	Safari® 11 and above	
	Microsoft <sup>®</sup> Edge 89 and above	
Database	PostgreSQL V11.8	
	iOS 10.0 and later	
OS for Smartphone	Android phone OS version 5.0 or later, and dual-core CPU with 1.5 GHz or above, and at least 2G	
	RAM	
OS for Tablet	iOS 10.0 and later	
OS for Tablet	Android tablet with Android OS version 5.0 and later	
	VMware® ESXi™ 6.x	
Virtual Machine	Microsoft <sup>®</sup> Hyper-V with Windows Server 2012/2012 R2/2016 (64-bit)	
virtual Machine	*The Streaming Server and Control Client cannot run on the virtual machine.	
	*Virtual server migration is not supported.	







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