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, and digital signage management 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 alarm pictures on NVRs, Hybrid SANs, cloud storage servers, pStors, or HikCentral server
- 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 surveillance, 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 by the Control Client

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 registration and check-out

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

Entrance and Exit Control

- Managing parking lot, entrances and exits, and lanes.
- Supports linking a LED screen with lane for information display
- Setting entry & exit rules for vehicles in the vehicle lists as well as vehicles not in any vehicle lists
- 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

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, and searching frequently appeared persons

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

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, 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® SQL Server, MySQL, PostgreSQL, or Oracle), thus the client can access third-party T&A and payment system

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

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
Devices and Resources	Cameras	General Performance: 3,000[1] High Performance: 10,000[2] High Performance (RSM): 100,000[2]
	Managed Device IP Addresses *Including Encoding Devices, Access Control Devices, Elevator Control Devices, Security Control Devices, Digital Signage Terminals, and Remote Sites*	General Performance: 1,024[1] High Performance: 2,048[2]
	Video Intercom Devices	2,048
	Alarm Inputs (Including Zones of Security Control Devices)	3,000
	Alarm Outputs	3,000
	Dock Stations	1,500
	Security Radars and Radar PTZ Cameras	30
	Alarm Inputs of Security Control Devices	2,048
	DS-5600 Series Face Recognition Terminals When Applied with Hikvision Turnstiles	32
	Recording Servers	64
	Streaming Servers	64
	Security Audit Server	8
	DeepinMind Server	64
	ANPR Cameras	3,000
	People Counting Cameras	Recommended: 300
	Heat Map Cameras	Recommended: 70
	Thermal Cameras	Recommended: 20[3]
	Queue Management Cameras	Recommended: 300
	Digital Signage Terminals	1,024
	Areas	3,000
	Cameras per Area	256
	Alarm Inputs per Area	256
	Alarm Outputs per Area	256
Recording	Recording Schedule	General Performance: 3,000[1] High Performance: 10,000[2]
	Recording Schedule Template	200
Event & Alarm	Event and Alarm Rules	General Performance: 3,000[1] High Performance: 10,000[2]
	Storage of Events or Alarms without Pictures	General Performance: 100/s[1] High Performance: 1,000/s[2]
	Events or Alarms Sent to Clients *The clients include Control Clients and Mobile Clients.*	120/s 100 Clients/s
Picture	Picture Storage *Including event/alarm pictures, face pictures, and vehicle pictures.*	20/s (Stored in SYS Server) 80/s (Stored in Recording Server)
Reports	Regular Report Rules	100
	Event or Alarm Rules in One Event/Alarm Report Rule	32
	Records in One Sent Report	10,000 or 10 MB
	Resources Selected in One Report *With this limitation, you can generate a neat and clear report via the Control Client and it costs less time.*	20
Data Storage	Data Retention Period	Stored for 3 Years
	People Counting	5 million

	Heat Map	0.25 million
	ANPR	60 million
	Events	60 million
	Alarms	60 million
	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
Users and Roles	Concurrent Accesses via Web Clients, Control Clients, and OpenAPI Clients	100
	Concurrent Accesses via Mobile Clients and OpenAPI Clients	100
	Users	3,000
	Roles	3,000
Vehicle (ANPR)	Vehicle Lists	100
	Vehicles per Vehicle List	5,000
	Under Vehicle Surveillance Systems	4
	Vehicle Undercarriage Pictures	3,000
Entrance & Exit	Lanes	8
	Cards Linked with Vehicles	250,000
	Vehicle Passing Frequency in Each Lane	1 Vehicle/s
Face Comparison	Persons with Profiles for Face Comparison	1,000,000
	Face Comparison Groups	64
	Persons in One Face Comparison Group	1,000,000
Person	Person Group	3,000
	Person Group Hierarchies	10
Access Control	Persons with Credentials for Access Control	50,000
	Visitors	10,000
	Total Credentials (Card + Fingerprint)	250,000
	Cards	250,000
	Fingerprints	200,000
	Profiles	50,000
	Access Points (Doors + Floors)	1,024
	Access Levels	512
	Access Schedules	32
Time and Attendance	Persons for Time and Attendance	10,000
	Shift Schedules	128
	Major Leave Types	64
	Minor Leave Types of One Major Type	128
Smart Wall	Decoding Devices	32
	Smart Walls	32
	Views	1,000
	View Groups	100
	Views in One View Group	10
	Cameras in One View	150
	Views Auto-Switched Simultaneously	32
Intelligent Recognition	Resource Groups for Intelligent Recognition	1,000
	Resources in One Group	64
Digital Signage	Materials	10,000
	Programs	2,000
	Schedules	1,000
	Release Records	1,000

Streaming Server's Maximum Performance	
Video Input Bandwidth per Streaming Server	300 × 2 Mbps
Video Output Bandwidth per Streaming Server	300 × 2 Mbps

①: The general performance requires Intel® Xeon® E3-1220 or higher.
②: The high performance requires Intel® Xeon® 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.
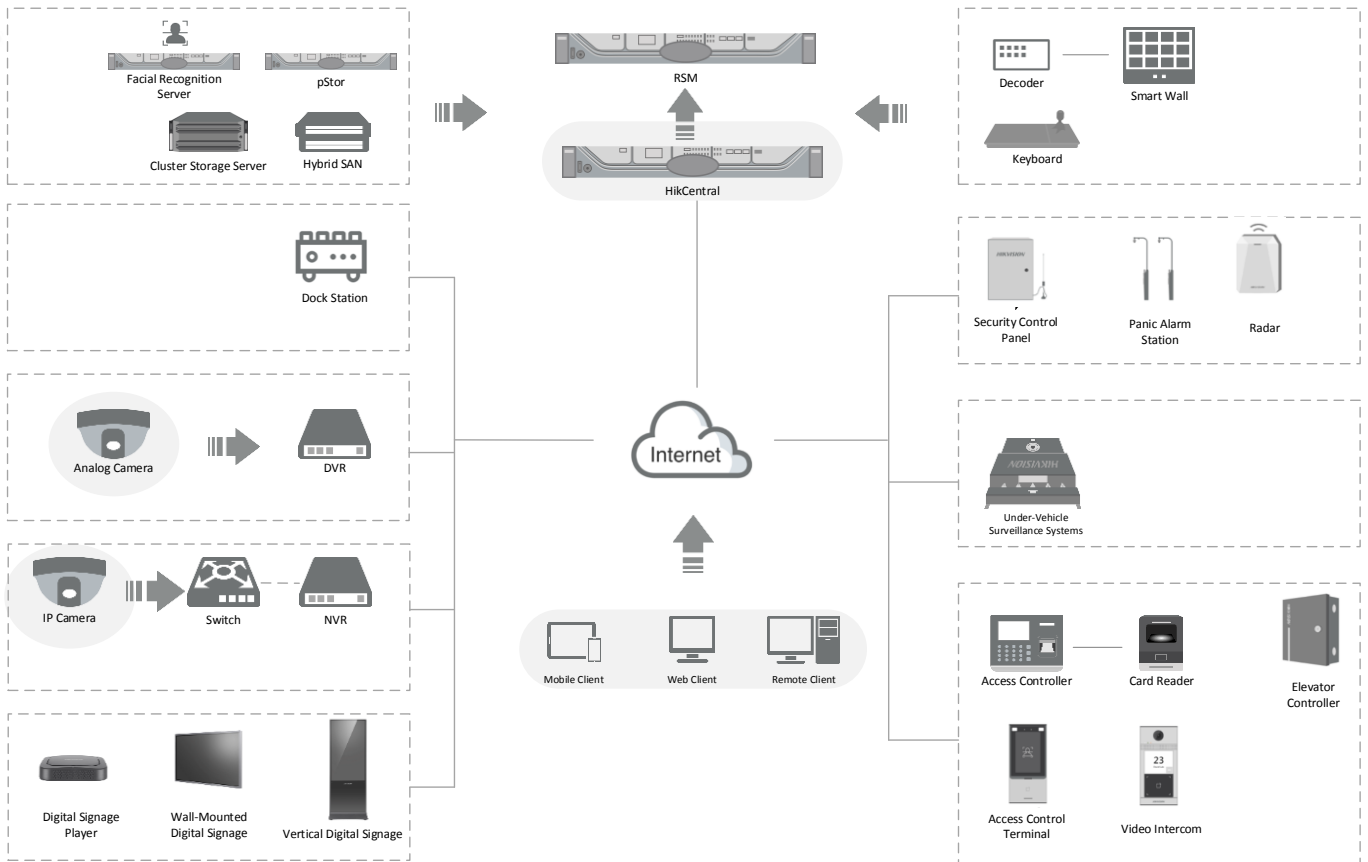
Hardware Specification

Processor	Intel® Xeon® E-2124
Memory	16G DDR4 DIMM slots, Supports UDIMM, up to 2666 MT/s, 64GB Max. Supports registered ECC
Storage Controllers	Internal Controllers: SAS_H330 Software RAID: PERC S140 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
Dimensions	Form Factor: Rack (1U) Chassis Width: 434.00mm (17.08 in) Chassis Depth: 595.63mm (23.45 in) (3.5"HHD) *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® 2016 multilingual operating system.	SUSE® Linux Enterprise Server VMware® ESXi

System Requirement

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

Feature	Description
OS for HikCentral Professional Server	Microsoft® Windows 7 SP1 (64-bit) Microsoft® Windows 8.1 (64-bit) Microsoft® Windows 10 (64-bit) Microsoft® Windows Server 2008 R2 SP1 (64-bit) Microsoft® Windows Server 2012 (64-bit) Microsoft® Windows Server 2012 R2 (64-bit) Microsoft® Windows Server 2016 (64-bit) Microsoft® 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 Control Client	Microsoft® Windows 7 SP1 (32/64-bit) Microsoft® Windows 8.1 (32/64-bit) Microsoft® Windows 10 (64-bit) Microsoft® Windows Server 2008 R2 SP1 (64-bit) Microsoft® Windows Server 2012 (64-bit) Microsoft® Windows Server 2012 R2 (64-bit) Microsoft® Windows Server 2016 (64-bit) Microsoft® 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
Browser Version	Internet Explorer 11 and above Chrome 61 and above Firefox 57 and above Safari 11 and above (running on Mac OS X 10.3/10.4)
Database	PostgreSQL V11.8
OS for Smartphone	iOS 10.0 and later 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 Android tablet with Android OS version 5.0 and later
Virtual Machine	VMware® ESXi™ 6.x Microsoft® Hyper-V with Windows Server 2012/2012 R2/2016 (64-bit) **The Streaming Server and Control Client cannot run on the virtual machine.* **Virtual server migration is not supported.*

![HIKVISION]

Typical Application

Facial Recognition Server — **pStor** — **Cluster Storage Server** — **Hybrid SAN**

Dock Station

Analog Camera → **DVR**

IP Camera → **Switch** → **NVR**

Digital Signage Player — **Wall-Mounted Digital Signage** — **Vertical Digital Signage**

RSM

HikCentral

Internet

Mobile Client — **Web Client** — **Remote Client**

Decoder — **Smart Wall**

Keyboard

Security Control Panel — **Panic Alarm Station** — **Radar**

Under-Vehicle Surveillance Systems

Access Controller — **Card Reader** — **Elevator Controller**

Access Control Terminal — **Video Intercom**

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