HikCentral V1.2
Specification

Introduction

HikCentral is a flexible, scalable, reliable and powerful central video system. It can be delivered after pre-installed on Dell server (optional). HikCentral provides central management, information sharing, convenient connection and multi-service cooperation. It is capable of adding devices for management, live view, storage and playback of video files, alarm linkage, access control, time and attendance, facial identification, and so on.

Key Components

Video Surveillance Management (VSM) Service
Streaming Service (Optional)
Web Client /Control Client/Mobile Client

System Requirements

OS for VSM Server	Microsoft® Windows 7 (64-bit)
	Microsoft® Windows 8 (64-bit)
	Microsoft® Windows 8.1 (64-bit)
	Microsoft® Windows 10 (64-bit)
	Microsoft® Windows Server 2008 R2 (64-bit)
	Microsoft® Windows Server 2012 (64-bit)
	Microsoft® Windows Server 2016 (64-bit)
OS for Control Client	Microsoft® Windows 7 (32/64-bit)
	Microsoft® Windows 8 (32/64-bit)
	Microsoft® Windows 8.1 (32/64-bit)
	Microsoft® Windows Server 2008 R2 (64-bit)
	Microsoft® Windows Server 2012 (64-bit)
	Microsoft® Windows 10 (64-bit)
Browser Version	Internet Explorer 10/11 and above (32-bit)
	Chrome 35 and above (32-bit)
	Firefox 32 and above (32-bit)
Database	PostgreSQL V 9.2.10
OS for Smartphone	iOS 8.0 and later
	Android phone OS version 4.0 or later, and dual-core CPU with 1.5 GHz or above, and at least 2G RAM
OS for Tablet	iOS 8.0 and later
	Android tablet with Android OS version 4.1 or later
Virtual Machine	VMware® ESXi™ 6.x
	Microsoft® Hyper-V with Windows Server 2012 R2

Function Features

VSM

- Provides normal and hot spare installation mode
- Provides unified authentication service for clients & servers
- Provides centralized management for users, roles, permissions, surveillance devices, alarm device, and servers
- Provides log management and statistics function
- Scalable for medium and large-sized projects
- Manage Remote Sites for HikCentral with RSM module
- Service manager for system health monitoring
- Streaming gateway: a VSM component that forwards and distributes audio and video data

Streaming Service (Optional)

- Forwards and distributes audio and video data

Web Client

- Access to the VSM via IP address or domain name
- License management:
  - Online or offline activation
  - Online or offline update
  - Online or offline deactivation
- Startup wizard guides you through basic operations including:
  - Adding encoding devices
  - Adding access control devices
  - Configuring event parameters
  - Managing system users
- Standard ONVIF™ protocol
- Remote Site's central management:
  - Add Remote Site to the Central System (HikCentral with an RSM module).
    Three adding modes for Remote Sites available:
    - ✓ By specifying the Remote Site's IP address or domain name
    - ✓ Adding Remote Site registered to the Central System.
    - ✓ By importing in a batch
  - Select the alarms configured on the Remote Site to receive in the Central System.
  - Back up the Remote Site's database in the Central System manually or regularly.
  - Synchronize the changed resources in the Central System (newly added cameras, deleted cameras, and name changed cameras) with the Remote Site.
- Encoding device management:
  - Multiple devices can be added: network cameras, network speed domes, video encoders, NVRs, etc.
  - Create password for inactive encoding device(s)
  - The password strength of the added encoding device can be checked by the system for

security notification

- ➢ Six adding modes for encoding devices available:
  - ✓ By detecting the online devices
  - ✓ By specifying the device IP address or domain name
  - ✓ By adding the devices added to a Hik-Connect account
  - ✓ By specifying an IP segment
  - ✓ By specifying a port segment
  - ✓ By importing in a batch
- ● Access control device management:
  - ➢ Create password for inactive access control device(s)
  - ➢ The password strength of the added access control device can be checked by the system for security notification
  - ➢ Five adding modes for access control devices available:
    - ✓ By detecting the online devices
    - ✓ By specifying the device IP address
    - ✓ By specifying an IP segment
    - ✓ By specifying a port segment
    - ✓ By importing in a batch
- ● Restore or reset passwords for detected online devices
- ● Recording Server manageable:
  - ➢ Add Hybrid Storage Area Network (Hybrid SAN) or Cloud Storage Server as Recording Server
  - ➢ Add Hybrid SAN or Cloud Storage Server by IP address
  - ➢ Provides WAN access
  - ➢ Provides searching the video files stored in Cloud Storage Server via the HikCentral Mobile Client.
  - ➢ Remotely configure the Hybrid SAN or Cloud Storage Server via a web browser
  - ➢ One-touch configuration for setting the Hybrid SAN storage
  - ➢ Hybrid SAN N+1 hot spare
  - ➢ Provide ANR function
- ● Streaming Server manageable:
  - ➢ Add Streaming Server by IP address
  - ➢ Provides WAN and LAN access
- ● Smart wall manageable:
  - ➢ Create password for inactive decoding device(s)
  - ➢ The password strength of the added decoding device can be checked by the system for security notification
  - ➢ Four adding modes for decoding devices available:
    - ✓ By detecting the online devices
    - ✓ By specifying the device IP address
    - ✓ By specifying an IP segment
    - ✓ By specifying a port segment
  - ➢ Add smart wall and link decoding output with the window
- ● Manage devices (cameras, alarm inputs, alarm outputs, doors, and Under Vehicle

Surveillance Systems(UVSSs)) by areas
- Edit door parameters
  - ➢ Edit basic information
    - ✓ Door magnetic sensor: Normally Open / Normally Closed
    - ✓ Exit button type: Normally Open / Normally Closed
    - ✓ Open duration(s)
    - ✓ Extended open duration(s)
    - ✓ Door open timeout alarm
    - ✓ Duress code
    - ✓ Super password
    - ✓ Dismiss code
    - ✓ Free access schedule
  - ➢ Edit application settings
    - ✓ Anti-passback
    - ✓ Open door with first card
  - ➢ Edit hardware settings
    - ✓ Edit card reader related parameters: OK LED Polarity, Error LED Polarity, Buzzer Polarity
    - ✓ Set card reader's access mode
- Recording
  - ➢ Two storage methods for storing the video files:
    - ✓ Encoding Device: DVR/NVR/ network camera (SD card);
    - ✓ Recording Server: Hybrid SAN or Cloud Storage Server
  - ➢ For Remote Site's cameras, store video files in the Central System's Hybrid SAN or Cloud Storage Server
  - ➢ Continuous recording, event triggered recording, and command triggered recording.
  - ➢ Set recording schedule: All-Day Time-Based Template, All-Day Event-Based Template, and Custom Template
  - ➢ Auxiliary storage
  - ➢ Picture storage: Store the images   (including passing vehicles and triggered alarms) on the VSM server's HDD
- Events & Alarms
  - ➢ Detect system-related events: camera events, door events, alarm input events, UVSS exceptions, Remote Site exceptions, device exceptions, server exceptions, user events, and generic events:
    - ✓ Camera events: motion, video loss, line crossing, etc.
    - ✓ Door events: access events, door status events, etc.
    - ✓ Device alarm input events
    - ✓ UVSS exceptions: UVSS online or offline
    - ✓ Remote Site exceptions: site offline
    - ✓ Device exceptions: device offline, HDD full, HDD read/write error, etc.
    - ✓ Server exceptions: high mainboard temperature, bad disk, disk loss, etc.
    - ✓ User events: user login or logout
    - ✓ Generic events

> ➢ Create a generic event rule to analyze the received TCP and/or UDP data packages, and trigger events
> ➢ Customize a user-defined event to define the event which is not in the provided system-related event list. You can trigger it manually on the Control Client
> ➢ Detect camera alarms, door alarms, alarm input alarms, ANPR alarms, person alarms, Remote Site alarms, encoding device exception alarms, server exception alarms, user alarms, user-defined alarms, and generic alarms
> ➢ In the Central System, detect camera alarms configured on Remote Site
> ➢ The event can trigger user-defined events
> ➢ Support to save event as alarm when editing event
> ➢ Send emails to notify users of triggered alarm information with email template configurable
> ➢ Set arming template for the events: all-day template, weekday template, weekend template, and custom template
> ➢ Set alarm priority: high, medium, low, and custom level
> ➢ Set alarm category: true, false, to be acknowledged, and to be verified
> ➢ Set alarm linkage actions: trigger pop-up image, audible warning, door linkage, PTZ linkage, map linkage, alarm output linkage, smart wall linkage, recording linkage, alarm notification, and user-defined event

- Map management
  > ➢ Enable GIS map function, configure the map API URL, and customize the icons of hot region and hot spot
  > ➢ Link e-map to area
  > ➢ Search locations on GIS map
  > ➢ Set the current site's and added Remote Site's location to the GIS map
  > ➢ Add/edit/delete the hot region on the map
  > ➢ Add/edit/delete hot spots (camera / alarm input / alarm output / door / UVSS) on the map
  > ➢ Add labels with description on the map
- Vehicle management
  > ➢ Add vehicle information manually
  > ➢ Import vehicle information according to the pre-defined template
- Person list management
  > ➢ Add person information one by one
  > ➢ Import information of multiple persons in a batch
  > ➢ Import multiple persons' profiles in a batch
  > ➢ Profile format: JPG, JPEG, and PNG
  > ➢ Issue cards to multiple persons in a batch
- Access control
  > ➢ Group persons with same access permission into access groups
  > ➢ Group doors into access levels and set schedule to define the authorized time periods
  > ➢ Assign the access level to access group
  > ➢ Apply all the access groups to device manually or regularly
  > ➢ Set access control schedule including weekly schedule and holiday schedule

- Time and attendance
  - Group persons into attendance groups
  - Add / delete the shift schedule
  - Assign the shift schedule to attendance group
  - Add / delete the access control checkpoint
  - Search the attendance records
  - Correct single person's attendance record
  - Correct multiple persons' attendance records
- Face comparison group
  - Group persons into face comparison group
  - Apply the face comparison group to device
- Role & User management
  - The default password of the admin user must be changed at first-time login.
  - Support changing the password of the admin user
  - The admin user can reset other uses' password
  - The user account will be frozen for 30 minutes after 5 failed password attempts
  - Add / edit / delete roles and users
  - Roles can be assigned with different permissions, including area display rule, resource access, and user permissions
  - Two default roles are supported: administrators and operators
  - The role name, expiry date, and text description can be set for the roles
  - The users can be assigned with the roles to obtain the corresponding permissions
  - The user name, expiry date, and text description can be set for the users
  - Two types of user status are supported: active and inactive
  - PTZ control permission level (1~100) can be set
  - Domain users can be imported in batches
  - The user can be forced to logout by the admin user
- Security settings
  - Lock IP address for configurable duration when reaching the configured failed password attempts
  - Set the min. password strength
  - Set the max. password age
  - Lock the Control Client after a time period of inactivity
- System configuration & maintenance
  - Create a name for the current site
  - A static IP address can be set for the WAN access
  - NTP settings
  - Active directory settings
  - Set the threshold for the VSM server's CPU usage and RAM usage
  - Set the holiday to adopt different shift schedule or access control schedule
  - Allow the system to receive the configured generic events.
  - For Central System, allow Remote Site registration
  - For Remote Site, register Remote Site to Central System

- ➢ VSM server NIC settings
- ➢ Set transfer protocol as HTTP or HTTPS
- ➢ System hot spare settings
- ➢ Set device access mode as automatically judge or proxy mode
- ➢ Reset network information of added devices
- ➢ Export service component certificate from VSM server
- ➢ Backup and restore database
- ● Live view
  - ➢ View real-time video from the cameras on the current site or cameras imported from a Remote Site
  - ➢ PTZ control; 256 presets/8 patrols/ 1 pattern
  - ➢ Manual recording
  - ➢ Capture
  - ➢ Instant playback
  - ➢ Digital zoom
  - ➢ Two-way audio
  - ➢ Switch between main stream or sub-stream
  - ➢ Display live view parameters.
  - ➢ Turn on/off the audio in live view; adjust the volume
  - ➢ Set the window division
  - ➢ POS Live View
    - ✓ Display transaction data alongside corresponding video
    - ✓ Transaction information video overlay / separate display
- ● Playback
  - ➢ Play the recorded video of the cameras on the current site and cameras imported from a Remote Site
  - ➢ Playback by timeline
  - ➢ Playback for up to 16 cameras
  - ➢ Download the recordings for backup
  - ➢ Reverse playback
  - ➢ Playback frame-by-frame
  - ➢ Single-frame backward
  - ➢ Slow forward/fast forward
  - ➢ Turn on/off the audio in playback; adjust the volume
  - ➢ Video clipping and capture
  - ➢ Set the window division
  - ➢ Digital zoom
  - ➢ Display video parameters
  - ➢ Customize playback speed
  - ➢ Select storage location and stream type for playback
- ● Local configuration
  - ➢ Set the network transmission settings
    - ✓ Network Performance: Normal/Better/Best

✓   Video Caching: Small (1 Frame)/Medium (6 Frames)/Large (15 Frame)

✓   Captured Picture Format: JPEG/BMP

✓   Device Access Mode: Restore Default/Automatically Judge/Directly Access/Proxy

➢ View local saving path of videos or pictures

Control Client

● GPU hardware decoding

● Receive alarm

● Access to VSM via IP address

● Log in with the domain user

● The user account will be frozen after 5 failed password attempts

● Live view

   ➢ View real-time video from the cameras on current site or cameras imported from Remote Site

   ➢ PTZ control; 256 presets/ 8 patrols/1 pattern

   ➢ PTZ control lock/unlock

   ➢ Set virtual presets

   ➢ Public view and private view

   ➢ Camera auto-switch/View auto-switch

   ➢ Manual recording

   ➢ Capture

   ➢ Instant playback

   ➢ Custom window division

   ➢ Fisheye dewarping modes.

   ➢ Auxiliary screen preview

   ➢ Digital zoom

   ➢ Two-way audio

   ➢ Turn on/off the audio in live view; adjust the volume

   ➢ Camera status detection

   ➢ Arming control

   ➢ Switch the live view stream to main stream or sub-stream

   ➢ Start live view on smart wall

● Playback

   ➢ Normal playback for continuous recordings

   ➢ VCA playback based on motion analysis /intrusion / line crossing events

   ➢ Async/Sync playback for up to 16 cameras

   ➢ Playback in fisheye dewarping mode

   ➢ Add default, customized tag to mark the important video footage

   ➢ Play the tagged video footage

   ➢ Play by files/timeline

   ➢ Lock / unlock the video file for file protection

   ➢ Download the video files

   ➢ Reverse playback

   ➢ Single-frame backward

- ➢ Playback frame-by-frame
- ➢ Slow forward/fast forward
- ➢ Customize high speed playback settings
- ➢ Turn on/off the audio in playback; adjust the volume
- ➢ Provide video thumbnail on the timeline
- ➢ Accurate positioning for playback
- ➢ Digital zoom
- ➢ Video clipping
- ➢ Capture
- ➢ Set the window division
- ➢ Camera status detection
- ➢ Arming control
- ➢ Switch the video stream to main stream or sub-stream
- ➢ Playback on smart wall
- ➢ Transcoding playback
- ● Map control
  - ➢ View the geographic locations of resources on the map
  - ➢ Get the live view and playback of the cameras, UVSSs, and doors on the map
  - ➢ Arming control: arm and disarm the cameras, alarm inputs, UVSSs, and doors on the map
  - ➢ Search and view history alarms of the cameras, alarm inputs, UVSSs, and doors on the map
  - ➢ Get a notification message on the map when alarm is triggered
  - ➢ Jump to the hot region map
  - ➢ Zoom in/out on the map
  - ➢ Select resource(s) on the map
  - ➢ Add labels with description on the map
  - ➢ Capture
  - ➢ Print map
  - ➢ Locate resource on the map
  - ➢ View the live video or playback of the resources on the map
- ● Alarm center
  - ➢ Display alarm info including alarm time, alarm name, alarm status, etc.
  - ➢ Display system alarm info including time and description
  - ➢ Play the video from the alarm time
  - ➢ View the live video from the related camera
  - ➢ Play the alarm related video on smart wall.
  - ➢ Add a tag to the alarm information
  - ➢ Acknowledge the alarm with a text description
  - ➢ Arming control for alarms
  - ➢ Sort alarms by the selected property
  - ➢ Clear alarms manually
  - ➢ Enable/disable the alarm audio
  - ➢ Enable/disable alarm triggered pop-up window

- ➢ Search event log files and alarm log files
- ➢ Manually trigger user-defined event
- ● ANPR control
  - ➢ View live video of ANPR cameras, and the license plate displays
  - ➢ Mark the detected vehicle
  - ➢ Add the new detected vehicle to the vehicle list
  - ➢ Search logs of vehicle license plate recognized by the camera and the related vehicle passing information
- ● UVSS control
  - ➢ View live video of UVSSs, and the undercarriage picture and license plate displays
  - ➢ Mark on undercarriage picture
  - ➢ Mark the detected vehicle
  - ➢ Add the new detected vehicle to the vehicle list
  - ➢ Search logs of vehicle license plate recognized by the camera and the related vehicle passing information
- ● Face comparison
  - ➢ View detected face in live view
  - ➢ View the face comparison information
  - ➢ Add the face picture to face comparison group
  - ➢ Upload a face picture to search the video when the face picture captured
- ● Access control
  - ➢ View live videos of door's related camera(s)
  - ➢ Play back the recorded video files of door's related camera(s)
  - ➢ Control door status
  - ➢ View the card swiping record in real time
  - ➢ Search the access control events triggered on the added doors
- ● Video search
  - ➢ Search video files stored on local devices or Recording Server
  - ➢ Search the video clip by tag, lock, segment, or interval
  - ➢ Search in storage location in Main Storage or Auxiliary Storage
  - ➢ Search the transaction event by inputting the keywords in POS information
  - ➢ Search the ATM event by inputting the card number that is contained in the ATM information
  - ➢ Set VCA rules to search the video where a VCA event occurs
  - ➢ Play the searched video clip
  - ➢ Download the searched video clip
- ● People counting statistic: Generate people counting report for the added people counting camera(s) to view the number of people entered, exited, or both entered and exited
- ● Heat map statistic: Generate heat map report to analyze the visit times and dwell time of customers
- ● Health monitoring
  - ➢ Status overview including camera status, door status, UVSS status, encoding device status, access control device status, Remote Site status, decoding device status, VSM status, Recording Server status, and Streaming Server status

- ➢ Detailed status page of cameras, encoding devices, doors, UVSSs, access control devices, Remote Sites, decoding devices, Recording Servers, and Streaming Servers
- ● Tools
  - ➢ Smart Wall
    - ✓ Decode and display the video streams from the camera on the smart wall
    - ✓ View camera status
    - ✓ Switch the live view stream to main stream or sub-stream
    - ✓ PTZ control
    - ✓ Window division
    - ✓ Switch to playback
    - ✓ View auto-switch
    - ✓ Create a roaming window
    - ✓ Enlarge and restore window
  - ➢ VSPlayer
  - ➢ Broadcast
  - ➢ Alarm Output
  - ➢ Two-Way Audio
- ● Download center
  - ➢ Check the downloading tasks and status centrally
  - ➢ Continuous transmission on the breakpoint
  - ➢ Download the player for playing back the video files
- ● Log search
  - ➢ Search log files of VSM, Remote Site, cameras, and smart walls that are connected to the system
  - ➢ Back up log files
- ● System settings
  - ➢ Configure the general parameters
    - ✓ Network Performance: Normal/ Better/Best
    - ✓ Picture Format: JPEG/BMP
    - ✓ Maximum Mode: Maximize/Full Screen
    - ✓ Enable/disable auto-login
    - ✓ Enable/disable to resume last interface
  - ➢ Configure the image parameters
    - ✓ View Scale: Full Screen, 4:3, 16:9 or Original Resolution
    - ✓ Video Caching: Small (1 Frame), Medium (6 Frames), or Large (15 Frames).
    - ✓ Enable / disable main / sub-stream auto-adaptive
    - ✓ Enable/disable highlight for Motion
    - ✓ Enable/disable VCA rule
    - ✓ Enable/disable GPU hardware decoding
    - ✓ Enable/disable display the transaction information on the live view and playback image
    - ✓ Enable/disable display the temperature information on the live view and playback image
 - ➢ Configuring file saving path

       ✓   Set local saving path of videos/pictures/packages

       ✓   Configure the FTP parameters

➢ Configuring keyboard and joystick parameters

➢ Configuring live view and playback settings

       ✓   Configure icons on live view and playback toolbar

       ✓   Enable/disable Screen Toolbar Display

➢ Set alarm sounds by local audio files or voice engine (require support of the OS)

Mobile Client

● Access to the VSM via IP address

● Log in with normal user or domain user

● Log in with HTTP or HTTPS transfer protocol

● The user account will be frozen after 5 failed password attempts

● Add/remove cameras to/from My Favorites

● Search cameras in different sites

● Live view

    ➢ View real-time video from the cameras

    ➢ View real-time video from the door's related camera(s)

    ➢ View real-time video from the Under Vehicle Surveillance System's camera (only for tablet)

    ➢ Set 1/4/9/16 window division

    ➢ PTZ control

    ➢ Turn on/off the audio in live view

    ➢ Set the video quality

    ➢ Manual recording

    ➢ Capture

    ➢ Two-way audio

    ➢ Digital zoom

    ➢ Fisheye dewarping

    ➢ Lock/unlock door manually

    ➢ Display persons' real-time access records, including person profile, person name, and access results.

    ➢ View the recognized passing vehicle information, including license plate number and passing time

    ➢ View the detected passing vehicle information, including real-time undercarriage picture, configured undercarriage picture, vehicle picture, license plate number and passing time (only for tablet)

    ➢ Mark on the captured real-time undercarriage picture (only for tablet)

    ➢ Add new vehicle to the vehicle list

    ➢ View the person's face comparison information (real-time and history), including captured face picture, person details, captured time, and similarity

    ➢ Add mismatched person into person list

    ➢ Trigger user-defined event manually

- ➢ Add to Favorites and view
- ● Playback
  - ➢ Search by date/storage mode
  - ➢ Provide three storage modes: encoding devices, Hybrid SAN, and Cloud Storage Server
  - ➢ Provide two stream type: main stream and sub-stream
  - ➢ Play back the recordings
  - ➢ Turn on/off the audio in playback
  - ➢ Video clipping
  - ➢ Capture
  - ➢ Synchronous playback
  - ➢ Digital zoom
  - ➢ Switch the video stream to main stream or sub-stream
  - ➢ Fisheye dewarping
  - ➢ Transcoding playback
  - ➢ PIP mode (only for tablet)
  - ➢ Scale up or scale down the playback timeline bar
- ● Receive and display the alarm notification and view the alarm related live video or recording
- ● View the alarm time of current site and Remote Site
- ● Display the camera details including online status, PTZ control, etc.
- ● Search (only for tablet)
  - ➢ Search video: search tagged video and VCA event related video
  - ➢ Search passing vehicle logs: search record of the passing vehicle, and view the vehicle details
  - ➢ Search access records: search the persons' access records and view the access details including person details and door information
  - ➢ Add person to person list
- ● Heat map statistics (only for tablet)
- ● View/delete/share the captured images and video clips
- ● Provide traffic flow statistics of Current Day/ Current Month/History
- ● Set device access mode as Restore Default/Automatically Judge/Directly Access/Proxy Mode to define the accessing device mode when performing live view or playback
- ● Provide hardware decoding
- ● Receive alarm information and view alarm details

Typical Application
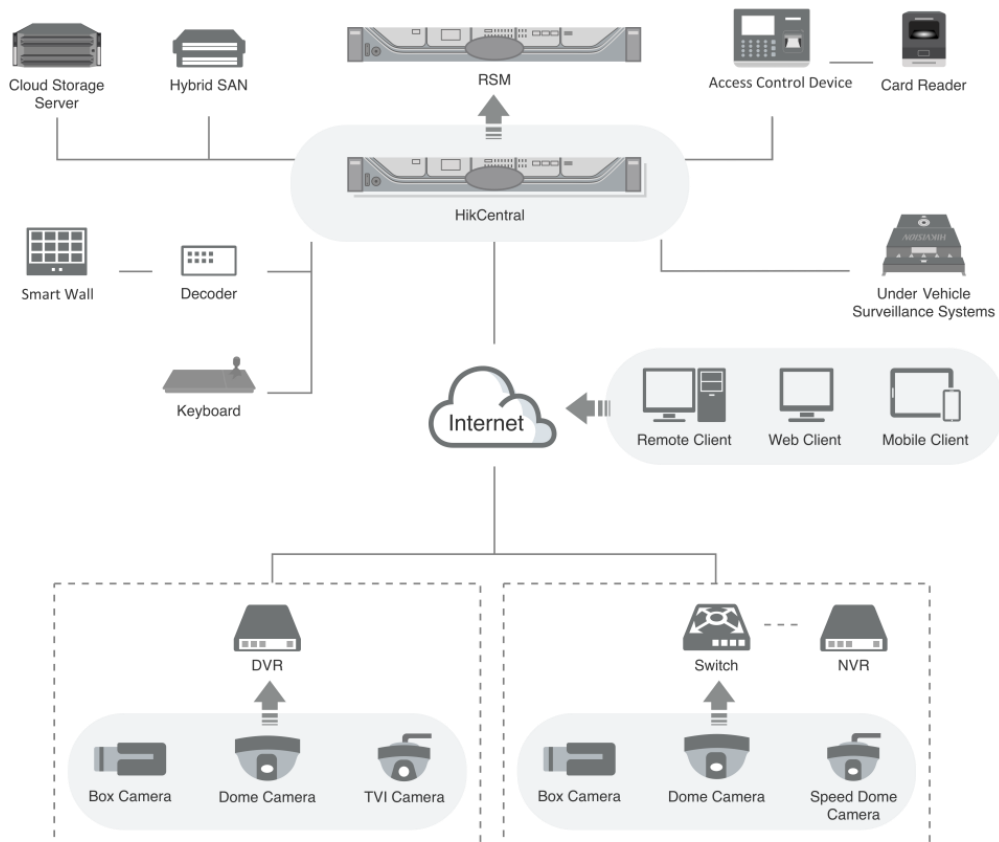
Software Specification

Note: The following table shows the maximum performance of the software. For other detailed data and performance, refer to *HikCentral V1.2_Software Requirements & Hardware Performance*.

VSM Server's Maximum Performance			
Items		**Without RSM (E3-1220)**	**With RSM (E5-2620)**
General	Cameras	3,000	3,000 (Current Site)
			100,000 (Remote Sites)
	Alarm Inputs	3,000	3,000
	Alarm Outputs	3,000	3,000
	Encoding Devices	1,024	
	Encoding Devices, Access Control Devices, and Remote Sites		1,024
	ANPR Cameras	[1]20	[1]20
	People Counting Cameras	[2]70	[2]70
	Heat Map Cameras	[3]70	[3]70
	Recording Servers	64	64
	Streaming Servers	64	64
	Areas	3,000	3,000
	Area Hierarchies	5	5
	Cameras per Area	64	64
	Alarm Inputs per Area	64	64
	Alarm Outputs per Area	64	64
Recording	Recording Schedules	3,000	30,000 (for Cameras on Current Site and from Remote Sites)
	Recording Schedule Templates	200	200
Event & Alarm	Event and Alarm Rules	3,000	10,000 (Current Site and Remote Sites)
	Events or Alarms Received per Second (Rule Matched)	[4]120	[4]120
	Arming Schedule Templates	200	200
	Alarm Categories	25	25
	Alarm Priorities	255	255
	Email Templates	Unlimited	Unlimited
	Report Rules	100	100
	Event or Alarm Rules in One Report Rule	32	32
	Event or Alarm Logs in One Sent Report	10,000 or 10 MB	10,000 or 10 MB
Logs &	Alarm Logs	60,000,000	60,000,000

Records Storage	Event Logs	60,000,000	60,000,000
	Operation Logs	5,000,000	5,000,000
	System Logs	5,000,000	5,000,000
	Tags	60,000,000	60,000,000
	License Plate Recognition Records	60,000,000	60,000,000
	People Counting Records	5,000,000 Stored for 2 Years	5,000,000 Stored for 2 Years
	Heat Map Records	250,000 Stored for 2 Years	250,000 Stored for 2 Years
Users and Roles	Concurrent Accesses via Web Clients, Control Clients, and OpenSDK Clients	100	100
	Concurrent Accesses via Mobile Clients and OpenSDK Clients	100	100
	Users	3,000	3,000
	Roles	3,000	3,000
Map	E-maps	1,024	1,024
	Map Resolution	8192×8192	8192×8192
	Map Hierarchies	6	6
	Hot Regions per Map	64	64
	Camera Hot Spots per Map	128	128
	Alarm Input Hot Spots per Map	128	128
	Alarm Output Hot Spots per Map	128	128
	Labels per Map	128	128
	Hot Regions in Total	1,024	1,024
	Camera Hot Spots in Total	3,000	3,000
	Alarm Input Hot Spots in Total	3,000	3,000
	Alarm Output Hot Spots in Total	3,000	3,000
	Labels in Total	3,000	3,000
	Elements on GIS Map in Total	3,000	3,000
Vehicle	Vehicle Lists	100	100
	Vehicles per Vehicle List	5,000	5,000
	Under Vehicle Surveillance Systems	4	4
	Vehicle Undercarriage Pictures	3,000	3,000
Face Comparison	Face Pictures	10,000	10,000
	Face Comparison Groups	64	64
	Persons in One Face Comparison Group	10,000	10,000
Person	Persons	10,000	10,000
	Cards	50,000	50,000
	Fingerprints	40,000	40,000
	Credentials (Card + Fingerprint)	50,000	50,000
Access Control	Access Control Devices	128	128
	Doors	128	128
	Doors on Each E-map	128	128
	Doors on E-maps in Total	128	128

	Anti-Passback Rules	128	128
	Doors in One Anti-Passback Rule	16	16
	Access Groups	64	64
	Persons in One Access Group	1,000	1,000
	Access Levels	128	128
	Doors in One Access Level	128	128
	Access Levels Assigned to One Access Group	8	8
	Access Schedules	32	32
	Attendance Groups	64	64
	Persons in One Attendance Group	1,000	1,000
	Shift Schedules	128	128
	Holidays	16	16
Smart Wall	Decoding Devices	32	32
	Smart Walls	32	32
	View Groups	100	100
	Views per View Group	10	10
	Views Auto-Switched Simultaneously	32	32
	Operation Logs Storage	500,000	500,000

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

Supported Language
English, Spanish, Russian, French, Italian, Polish, Turkish, Dutch, Portuguese, German, Czech, Bulgarian, Hungarian, Thai, Danish, Japanese, Simplified Chinese, Traditional Chinese

[1]Recommended maximum value due to the limit that the system can receive maximum 20 alarms with pictures per second (picture size: 500 KB).

[2]Recommended maximum value due to the limit that the camera can upload one people counting record per 15 min and storing 5 million records for two years.

[3]Recommended maximum value due to the limit that the camera can upload one heat map record per hour and storing 250,000 heat map records for two years.

[4]20 alarms with pictures and 100 alarms without pictures can be received concurrently per second.

Hardware Specification

Hikvision bought 3-year platinum service from Dell. You can get assistance from your regional Dell support center if you encounter any problems on the Dell server. For details, refer to *Maintenance Guide of Dell All-In-One Server*.

Feature	E3-1220 V5	E5-2620 V4
Processer	E3-1220 V5 (4-Core, 3.0 GHz)	E5-2620 V4 (8-Core, 2.1 GHz)
Operating System	Windows Server 2012 R2	Windows Server 2012 R2
Memory	16G DDR4, 2400MT/s UDIMMS	8G RDIMM × 2, 2400MT/s RDIMMS
Storage	1T SATA × 2, 3.5" Enterprise SATA 7.2k HDDs	1T SATA × 2, 3.5" Enterprise SATA 7.2k HDDs
RAID	H330 RAID Controller with RAID 1	H330 RAID Controller with RAID 1
NIC	1GbE × 4	1GbE × 4
Chassis	1U, Rack Mount	2U, Rack Mount
Battery	CR-2032 Coin Cell/Lithium/0.0032kg	CR-2032 Coin Cell/Lithium/0.0032kg
Power Supply	250W Cabled PSU	750W AC Power Supply × 2
Dimensions (W × D × H)	482.38 mm × 567.92 mm × 42.8 mm (18.99" × 22.36" × 1.69")	482.38 mm × 755.8 mm × 87.3 mm (18.99" × 29.76" × 3.44")
Weight	9.5 kg	23.5 kg
Dimensions with Package (W × D × H)	750 mm × 614 mm × 259 mm (29.53" × 24.17" × 10.2")	960 mm × 610 mm × 295 mm (37.8" × 24.02" × 11.61")
Weight with Package	15.8 kg (34.8 lb)	32.1 kg (70.8 lb)
License	- License with 64 Cameras Manageable; - License with 300 Cameras Manageable.	- License with 16 Cameras Manageable; - License with 64 Cameras Manageable; - License with 300 Cameras Manageable; - License with 8 Cameras and 2 Remote Sites Manageable.

See Far, Go Further