encoding devices, access control devices, security control devices, dock stations, Remote Sites, decoding devices, SYS servers, Recording Servers, Streaming Servers, and facial recognition servers

- History status overview of the managed resources including online rate, device online rate, and recording integrity rate
- Detailed status page of cameras, encoding devices, doors, elevators, UVSSs, access control devices, elevator control devices, security control devices, dock stations, Remote Sites, decoding devices, Recording Servers, Streaming Servers, DeepinMind servers, security audit servers
- Set stream type for the resources to main stream, sub-stream, smooth stream, or restore to global stream

- Smart Wall
  - Smart Wall (Decoding Device)
    - ✓ 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
    - ✓ Area's cameras auto-switch
    - ✓ Create a roaming window
    - ✓ Enlarge and restore window
    - ✓ View alarm's related video on smart wall
    - ✓ View and export window No. and camera ID
  - Smart Wall (Graphic Card)
    - ✓ Display all contents (cameras, access points, maps, face comparison groups) in live view on smart wall
    - ✓ Display camera on smart wall
    - ✓ Display area on smart wall
    - ✓ Display map on smart wall
    - ✓ Display view and view group on smart wall
    - ✓ Display alarm's related video on smart wall
    - ✓ Display health monitoring page on smart wall
    - ✓ Display GPU usage of graphics card
- Tools
  - VSPlayer
  - Broadcast
  - Alarm Output
  - Two-Way Audio
- Download center
  - Check the downloading tasks and status
  - Continuous transmission on the breakpoint
  - Download the player for playing back the video files

- Audit Trail
  - Search log files of SYS, Remote Site, cameras, and smart walls that are connected to the system
  - Back up log files
- System settings
  - Configure general parameters
    - ✓ Global Stream: main stream, sub-stream, smooth stream for global usage
    - ✓ Set the window proportion threshold for switching between main stream or sub-stream
    - ✓ Network timeout: the default waiting time for the Control Client
    - ✓ Picture format: JPEG/BMP
    - ✓ Maximum mode: Maximize/Full Screen
    - ✓ Time zone: Device time or client time
    - ✓ Show time difference
    - ✓ Upper limit of bandwidth for downloading video from pStor
    - ✓ Auto-login
    - ✓ Resume last interface: Display control panel, specified view, or last interface
    - ✓ Display the number of each window
  - Configure image parameters
    - ✓ View scale: full screen or original resolution
    - ✓ Window scale: 4:3 or 16:9
    - ✓ Video caching: small (1 frame), medium (6 frames), or large (15 frames)
    - ✓ Continuous decoding
    - ✓ Enable/disable highlight for Motion
    - ✓ Enable/disable VCA rule
    - ✓ Enable/disable GPU hardware decoding
    - ✓ Enable/disable display transaction information on live view and playback image
    - ✓ Enable/disable display temperature information on live view and playback image
  - Configure local saving path of videos/pictures/packages
  - Configure keyboard and joystick parameters
  - Configure live view and playback settings
    - ✓ Configure icons on live view and playback toolbar
    - ✓ Enable/disable toolbar display
  - Set screen position according to real layout in order to switch screen by keyboard conveniently
  - Set alarm sounds by local audio files or voice engine (require support of the OS)
  - Set the refresh interval of resource status in Health Monitoring

Mobile Client

- Access to the SYS 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 access point's related camera(s)
  - View real-time video from the UVSS's camera (only for tablet)
  - View real-time video from the elevator control device's related camera(s)
  - View real-time video from the radar's related camera(s)
  - PTZ control
  - Turn on/off the audio in live view
  - Set the video quality
  - Manual recording
  - Capture
  - Two-way audio
  - Digital zoom
  - Slide on the image to realize fisheye dewarping
  - Lock/unlock door manually
  - Set the access level (temporary access, access with credential, free access, or access forbidden) for each floor linked to the elevator control device
  - Arm/Disarm radar
  - Display persons' real-time access events, including person profile, person name, and access results
  - Display information of face comparison events, including captured face picture, time, captured camera, etc.
  - View the recognized passing vehicle (including motorcycle) 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
  - Add mismatched vehicle into person list
  - Trigger user-defined event manually
  - Switch stream type (main stream, sub stream, or smooth stream) for a channel
  - Set main stream or sub-stream as the default stream type for accessing the resources of all the encoding devices
- Playback
  - Play back one channel or simultaneously play back multiple channels
  - Search by date/storage mode
  - Provide three storage modes: encoding devices, Hybrid SAN, and Cloud Storage Server
  - Playback 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
- Slide on the image to realize fisheye dewarping
- Transcoding playback
- PIP mode
- Scale up or scale down the playback timeline bar
- Add tags to a specific video footage which contains important information

- View mode
  - View public view and private view
  - Live view and playback in view mode
- Receive alarms
  - Receive and display alarm notification and view alarm related live video or recording
  - View the alarm time of current site and Remote Site
  - Filter alarms by alarm priority, alarm status, alarm category
  - View alarm sources on related maps
  - Acknowledge alarm(s)
- Display alarms of security control devices in real-time
- Display the camera details including online status, PTZ control, etc.
- Turnstile and face recognition devices accessible, and you can control them such as opening/closing door
- Add person information
- Add person information to face comparison group
- Map control (only for tablet)
  - View the geographic locations of resources on the map
  - Get the live view and playback of the cameras, UVSSs, and doors on the map
  - Search and view history alarms of cameras, alarm inputs, UVSSs, and doors on the map
  - 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
  - Locate resource on the map
  - View the live video or playback of the resources on the map
  - Control access points on map
  - Display the moving pattern of the object detected by the radar
  - Search and view access records
- Subscribe events of all the access points and all face comparison groups (only for tablet)
- Search (only for tablet)
  - Search video: search tagged video and VCA event related video
  - Search passing vehicle logs: search records of passing vehicles and view vehicle details
  - Search access records: search the persons' access records and view the access details

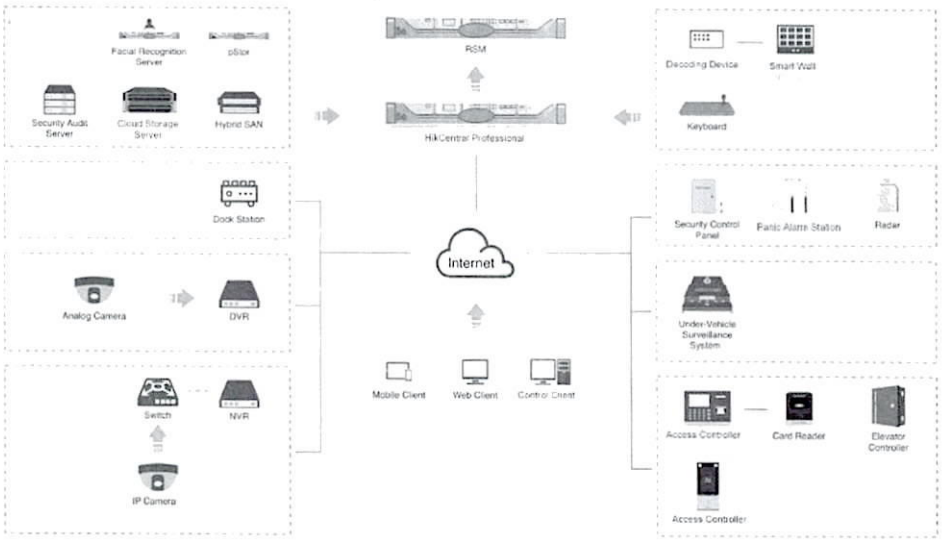
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including person details and door information

- Search Persons:
  - Search the face pictures matched with the pictures in the selected face comparison group(s) during the selected time periods, and view the result details including match time, related video footage, and related picture.
  - Search the captured pictures persons in the selected person list captured by the selected camera(s) during the selected time periods.
  - Search the frequently appeared persons captured by the selected cameras during the selected time period, and view the result details including captured time, related video footage, and related picture.
  - Search the records captured pictures) in stranger libraries of the selected face comparison devices and the history face comparison records of the selected face comparison groups.
  - Search for a specific person's identity by uploading his/her face picture and setting a similarity threshold.
- Add person to person list

- BI report (only for tablet)
  - Heat map report
  - Temperature report
  - Queue analysis report
  - People counting report
  - Vehicle ANPR report
  - Pathway analysis report
- Registration
  - Upload person information (name, gender, face comparison group, person group, effective period, etc.) to the system
  - Upload visitor information (ID type, name, person group, visitee, purpose, etc.) to the system
- 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
- Display detection frames (including motion detection frames, fire source information, temperature, etc.) on live video
- Automatically refresh the thumbnails of the resources displayed on the Logical Resource page and Favorites
- Use the time of the time zone where the phone running the Mobile Client locates in, or the time of the time zone where the device locates in
- Display the zone information on the time (e.g., 2018-12-12 12:12:12 +8:00)
- Update the Mobile Client to its latest version if new version is available
- Switch account

Typical Application



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
General	Cameras	Centralized Deployment: 3,000① Distributed Deployment: 10,000② Central System (RSM): 100,000③
	Managed Device IP Addresses **Including Encoding Devices, Access Control Devices, Elevator Control Devices, Security Control Devices, and Remote Sites*	Centralized Deployment: 1,024① Distributed Deployment: 2,048②
	Alarm Inputs (Including Alarm Inputs of Security Control Devices)	3,000
	Alarm Outputs	3,000
	Dock Stations	1,500
	Security Control Devices	16
	Security Radars	10
	Alarm Inputs of Security Control Devices	2,048
	DS-5600 Series Face Recognition Terminals When Applied with Hikvision Turnstiles	32
	Facial Recognition Servers	64
	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: 20④
	Queue Management Cameras	Recommended: 300
	Areas	3,000
	Cameras per Area	256
	Alarm Inputs per Area	256
	Alarm Outputs per Area	256
Recording	Recording Schedule	10,000
	Recording Schedule Template	200
Event & Alarm	Event and Alarm Rules	Centralized Deployment: 3,000 Distributed Deployment: 10,000 Central System (RSM): 10,000
	Storage of Events or Alarms without Pictures	Centralized Deployment: 100/s

		Distributed Deployment: 1000/s
	Events or Alarms Sent to Clients **The clients include Control Clients and Mobile Clients.*	120/s 100 Clients/s
	Arming Schedule Templates	200
Picture	Picture Storage **Including event/alarm pictures, face pictures, and vehicle pictures.*	20/s (Stored in SYS Server) 120/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
Face Comparison	Persons with Profiles for Face Comparison	1,000,000
	Face Comparison Groups	64
	Persons in One Face Comparison Group	1,000,000
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)	512
	Access Groups	256
	Persons in One Access Group	10,000
	Access Levels	128
	Access Schedules	32
Time and Attendance	Persons for Time and Attendance	10,000
	Attendance Groups	256
	Persons in One Attendance Group	10,000
	Shift Schedules	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	256
	Views Auto-Switched Simultaneously	32
Streaming Server's Maximum Performance		
Video Input Bandwidth per Streaming Server		300 × 2 Mbps
Video Output Bandwidth per Streaming Server		300 × 2 Mbps

①: For one site, the maximum number of the added encoding devices, access control devices, and security control devices in total is 1,024. If the number of the manageable cameras (including the cameras directly added to the site and the cameras connected to these added devices) exceeds 3,000, the exceeded cameras cannot be imported to the areas.

②: For one site with Application Data Server deployed independently, the maximum number of the added encoding devices, access control devices, and security control devices in total is 2,048. If the number of the manageable cameras (including the cameras directly added to the system and the cameras connected to these added devices) exceeds 10,000, the exceeded cameras cannot be imported to the areas.

③: For one site, if the number of the manageable cameras (including the cameras managed on the current site and the cameras from the Remote Sites) in the Central System exceeds 100,000, the exceeded cameras cannot be managed in the Central System.

④: 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

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
Processer	E3-1220 V5 (4-Core, 3.0 GHz)
Operating System	Microsoft® Windows Server 2012 R2
Memory	16G DDR4, 2400MT/s UDIMMS
Storage	1T SATA × 2, 3.5" Enterprise SATA 7.2k HDDs
RAID	H330 RAID Controller with RAID 1
NIC	1GbE × 2
Chassis	1U, Rack Mount
Battery	CR-2032 Coin Cell/Lithium/0.0032kg
Power Supply	250W Cabled PSU
Dimensions (W × D × H)	482.38 mm × 567.92 mm × 42.8 mm (18.99" × 22.36" × 1.69")
Weight	9.5 kg
Dimensions with Package (W × D × H)	750 mm × 614 mm × 259 mm (29.53" × 24.17" × 10.2")
Weight with Package	15.8 kg (34.8 lb)
License	License with 64 Cameras Manageable; License with 300 Cameras Manageable.

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See Far, Go Further

HIKVISION

HikCentral
Central Management System

HikCentral is a Central Management System (CMS) designed for managing distributed sites or large groupings of cameras recording on Hikvision NVRs, DVRs, and CVRs. HikCentral is pre-loaded on a Windows-based server (optional).

Best User Experience

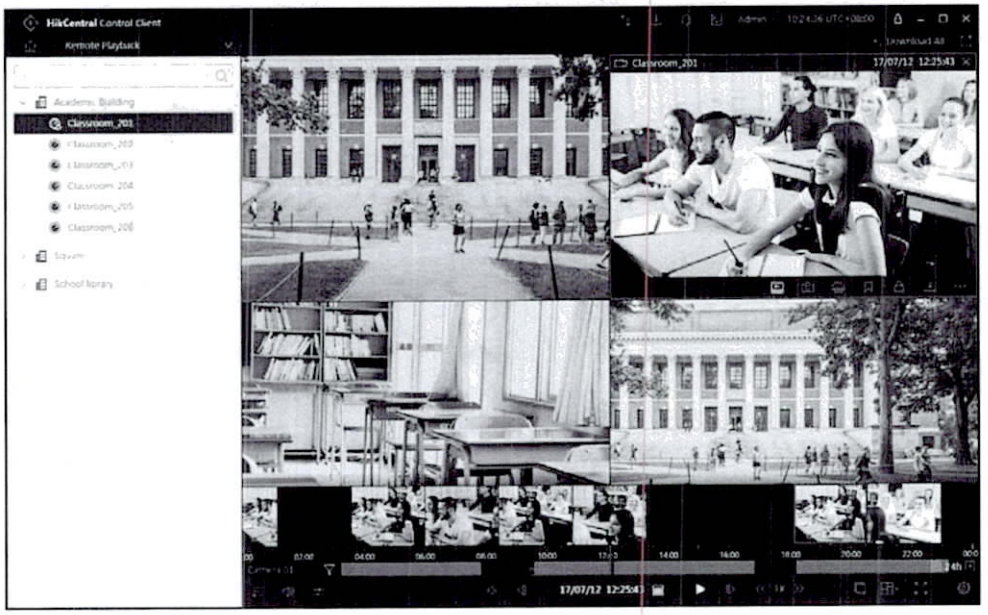
- User-defined live view and playback functionality enhances video monitoring flexibility
- Alarm notifications generate instant alerts during live view
- Seamless channel switching from live view to playback
- Auto-switching of cameras by area allows operator to monitor multiple video feeds simultaneously without manual intervention
- Powerful thumbnail and timeline search capabilities facilitate quick playback positioning
- Export multiple video channels simultaneously in playback view

Powerful Surveillance Management

- Capacity to mark key evidence manually and/or automatically using alarm-based tagging function
- Protect video files from being overwritten by locking video clips for evidence management
- Search videos by tag, locked status, time interval, time, and file
- "After-the-fact" VCA Search of playback video for motion analysis, line crossing detection, and intrusion detection
- Free mobile client enables video and alarm monitoring anytime, anywhere

Powerful Centralized Management

- Interactive mapping enables intuitive management of alarm inputs/outputs, cameras, hot regions, and historical alarm searching
- Unified alarm center provides real-time alarm management by using an intuitive notification of related pictures, e-map, video clips, and more
- Seamless integration with active directory for user management
- Centralized license plate recognition search, heat map analysis, and people counting statistics extend system functionality



Synchronized playback of multiple video camera feeds

High Reliability

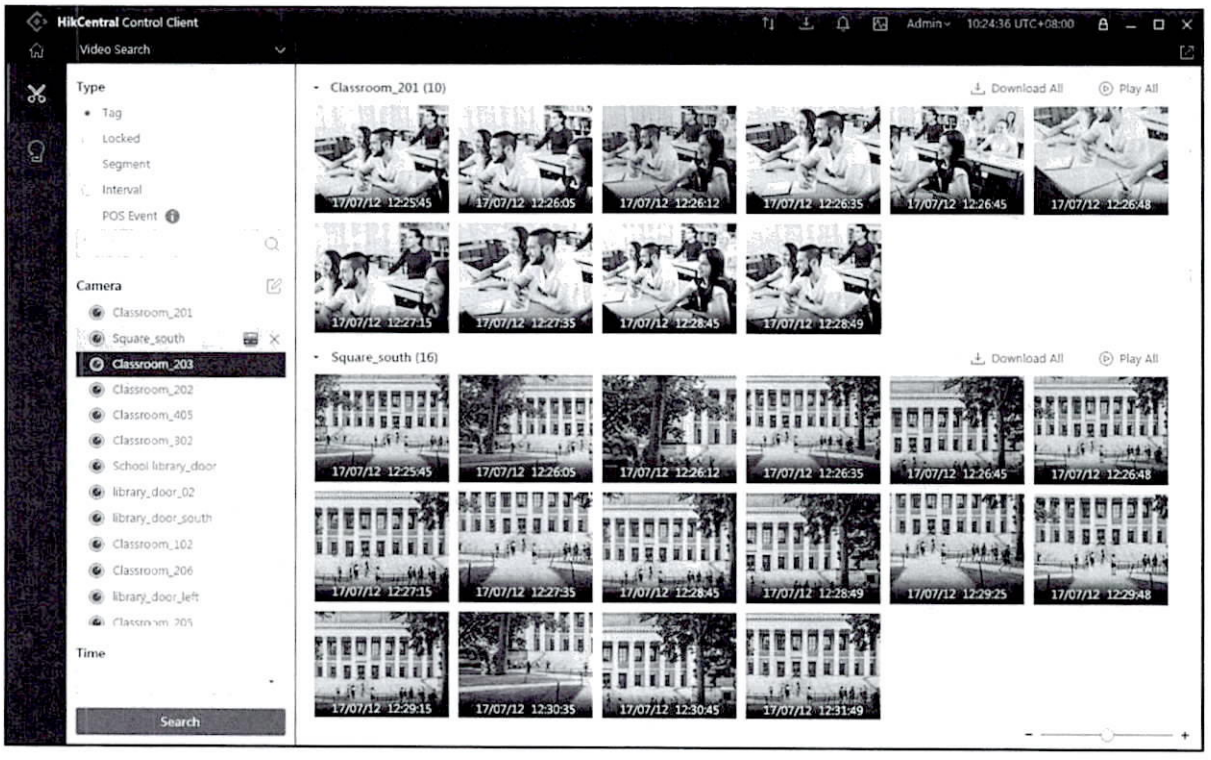
- Strict system test for pre-installation of HikCentral on the Hikvision Management Server
- System support for CVR N+1 Hot Spares for storage redundancy
- Support for Windows cluster and Rose Replicator solutions to augment system reliability

High Scalability

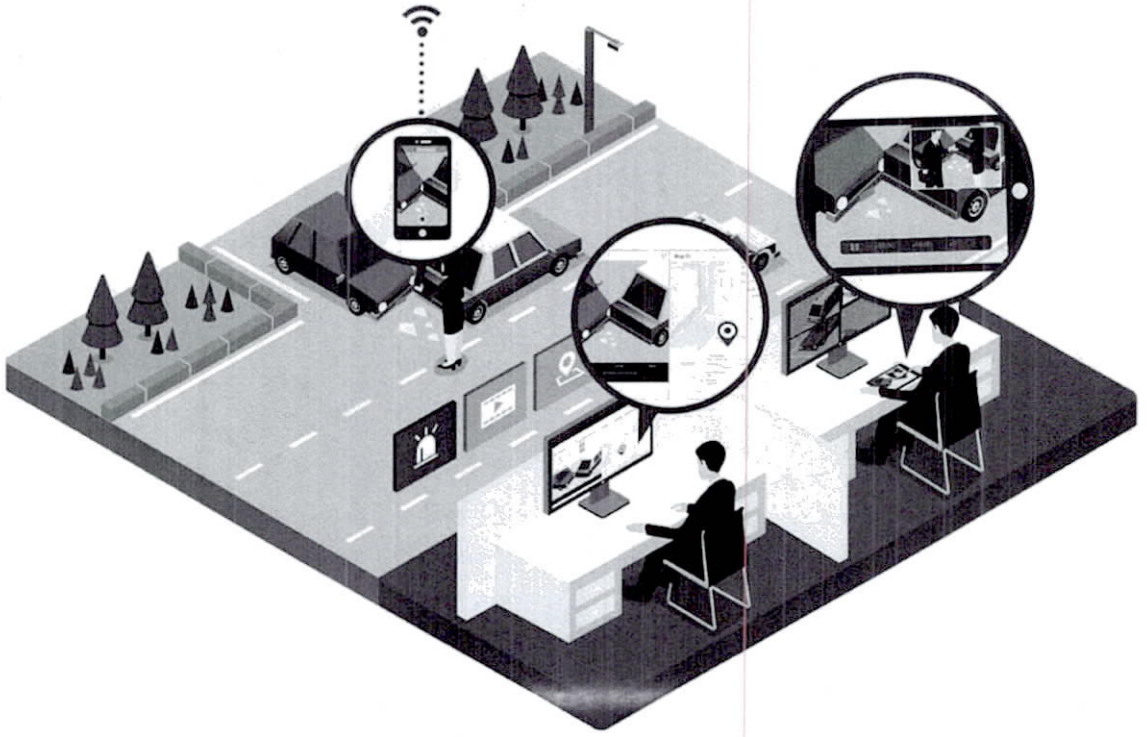
- Expand channel numbers by adding NVR, DVR, IPC, and Blazer Express
- Extend central storage by adding a Central Video Recorder (CVR)
- High video throughput with minimal CPU and RAM requirements
- Support for up to 3000 channels and 1024 devices per server
- Expand system video input/output by adding Streaming Media Server (SMS); each SMS can support up to 300 x 2 Mbps video inputs and/or outputs

Fast-Deployment

- Pre-loaded software and pre-activated license (optional)
- Lightweight installation package minimizes installation time
- Web client enables management and configuration anytime, anywhere
- One-step configuration automatically detects devices and allows quick access to live view and video playback
- Intuitive Flat GUI design simplifies system configuration and user experience to reduce cost of training
- WAN access port mapping for seamless deployment of remote access



VCA search of playback videos for motion analysis, line crossing, and intrusion detection



Intuitive management of alarm inputs, alarm outputs, cameras, hot regions, and historical events

Specifications

HikCentral Specifications	Details
Maximum number of IP cameras / NVRs / DVRs / Blazer Express Connections	1024
Maximum number of channels	3000
Maximum number of alarm inputs / outputs	3000
Maximum number of areas	3000
Maximum number of roles	64
Maximum number of uses	10000
Maximum number of e-maps	1024
Maximum number of Central Video Recorders	32
Maximum number of Streaming Server connections	10000
Maximum number of concurrent Web Client or Control Client connections	100
Maximum number of concurrent mobile client connections	100
Maximum user permission levels	100

Specification of Hikvision Management Server	Details
CPU	E3-1220 V5 (four-core 3.0GHz)
Operation system	Windows Server 2012 R2
Memory	16 GB DDR4
Storage	1 TB SATA × 2
Raid support	H330 Raid Controller with Raid 1
NIC	1 GbE × 4
Chassis	1 U, rack mount
Pre-loaded license	64 / 300 channels
License extendable to	3000 channels

Compatibility

Model Number	Recommended Firmware Version (or higher)
Pro Series	
DS-9616NI-ST	3.4.5
DS-9632NI-ST	3.4.5
DS-9664NI-ST	3.4.5
DS-9632NI-I8	3.4.92
DS-9664NI-I8	3.4.92
DS-96128NI-I24/H	3.2.7*
DS-96256NI-I24/H	3.2.7*
Value Series	
DS-7604NI-E1/4P	3.4.92
DS-7608NI-E2/8P	3.4.92
DS-7616NI-E2/16P	3.4.92
DS-7608NI-I2/8P	3.4.92
DS-7616NI-I2/16P	3.4.92
DS-7716NI-I4/16P	3.4.92
DS-7716NI-SP/16	3.4.5
DS-7732NI-I4	3.4.92
DS-7732NI-I4/16P	3.4.92
Decoders	
DS-6401HDI-T	Not compatible
DS-6404HDI-T	Not compatible
DS-6408HDI-T	Not compatible

Model Number	Recommended Firmware Version (or higher)
TurboHD 3.0 Series	
DS-7204HGHI-SH	V3.1.17
DS-7216HGHI-SH	V3.1.17
DS-7208HGHI-SH	V3.1.17
DS-7204HUHI-F1/N	V3.4.84
DS-7208HUHI-F2/N	V3.4.84
DS-7216HUHI-F2/N	V3.4.84
DS-7308HUHI-F4/N	V3.4.84
DS-7316HUHI-F4/N	V3.4.84
DS-9008HUHI-F8/N	V3.4.84
DS-9016HUHI-F8/N	V3.4.84
DS-7308HQHI-SH	V3.1.17
DS-7316HQHI-SH	V3.1.17
DS-7332HGHI-SH	V3.1.17
DS-9008HQHI-SH	V3.1.17
DS-9016HQHI-SH	V3.1.17
TurboHD 4.0 Series	
DS-7204HQI-K1	V3.5.11
DS-7208HQI-K2	V3.5.11
DS-7216HQI-K2	V3.5.11
DS-7204HUI-K1	V3.5.11
DS-7208HUI-K2	V3.5.11
DS-7216HUI-K2	V3.5.11

* New firmware to be released in Q3 2017. Please check www.hikvision.com/us

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HIKVISION

HikCentral-VSS-Base/HW/64Ch

HikCentral is a flexible, scalable, reliable and powerful central video system. It can be delivered after pre-installed on Dell server. 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, and so on.



System Requirements

Feature	Description
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) Microsoft® Windows Server 2016 (64-bit)
Browser Version	Internet Explorer 10/11 and above (32-bit) Chrome 35 and above (32-bit) Firefox 32 and above (32-bit)
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

Function Features

VSM Server

Provides normal and hot spare installation mode

Provides unified authentication service for clients & servers

Provides centralized management for users, roles, permissions, surveillance devices, and servers

Provides log management

Scalable for medium and large-sized projects

Service manager for system health monitoring

Streaming gateway: a VSM component that forwards and distributes audio and video data as well as forwards signaling

Streaming Service

Forwards and distributes audio and video data

Web Client

Access the VSM service 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
- Configuring event parameters
- Managing system users

Supports standard ONVIF™ protocol

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 purpose
- Six adding modes for encoding devices available:
  - By detecting the online devices in the same subnet with the VSM server or current PC
  - 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

Restore or reset passwords for detected online devices

Recording Server manageable

- Add Hybrid Storage Area Network (Hybrid SAN) or Cloud Storage Server as a 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 added 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

Manage resources (cameras, alarm inputs, and alarm outputs) by areas

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
- Continuous recording, event triggered recording, and command triggered recording.
- Set uploading schedule to upload the specific type of video files stored in one storage medium to the selected storage location
- Set recording schedule: All-Day Time-Based Template, All-Day Event-Based Template, and Custom Template
- Auxiliary storage

Picture storage

- Store the images uploaded from the devices, such as alarm triggered pictures, on the HDD of VSM server, Hybrid SAN, or Cloud Storage Server.
- Store the pictures imported by the users, such as static map pictures, on the HDD of VSM server.

Events & alarms

- Set system-monitored events for the resources in the system
  - Camera events: motion, video loss, line crossing, etc.
  - Device alarm input events
  - Device exceptions: device offline, HDD full, HDD read/write error, etc.
  - Server exceptions: high mainboard temperature, bad disk, disk loss, etc. (including Streaming Servers, Recording Servers, and HikCentral Server)
  - User events: user login or logout
  - User-defined events
  - Generic events
- Set event linkage actions such as recording, creating tag, capturing pictures, linking alarm outputs, PTZ actions, sending emails, and triggering user-defined events
- Send emails to notify users of triggered event information with email template configurable
- 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
- Trigger the events as alarms and set alarm linkage actions including related cameras, related maps, pop-up window, audible warning, and triggering user-defined event
- Save event as alarm when editing event
- Set arming schedule for the events: all-day template, weekday template, weekend template, and custom template
- Set arming schedule for the alarms: all-day template, weekday template, weekend template, custom template, or the alarms can be armed or disarmed when an event starts or ends
- Set alarm priority: high, medium, low, and custom

- Set alarm category: true, false, to be acknowledged, and to be verified

Map management

- Link e-map to area
- Search locations on GIS map
- Set the current 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) on the map
- Add labels with description on the map

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 users' 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
- Set an email address for the added user so that he/she can reset the password via email if he/she forgot the password
- 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 minimum password strength
- Set the maximum password age
- Lock the Control Client after a time period of inactivity

System configuration & maintenance

- Create a name for the current site
- Enable GIS map function, configure the map API URL, and customize the icons of hot region and hot spot
- Set the threshold for the VSM server's CPU usage and RAM usage
- NTP settings
- Active directory settings
- Allow the system to receive the configured generic events
- Register to Central System as a Remote Site

- A static IP address can be set for the WAN access
- Set the network timeout (default waiting time) for the configurations on the Web Client
- Set device access mode as automatically judge or proxy mode
- VSM server NIC settings
- Set the retention period for storing the data recorded in system
- Pre-define schedule templates including recording schedule and arming schedule
- Pre-define email templates
- Set transfer protocol as HTTP or HTTPS
- System hot spare settings
- 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
- PTZ control
- 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
- 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
  - GPU hardware decoding
  - Stream type for global usage: main stream, sub-stream, and smooth stream
  - Set the window proportion threshold for switching between main stream or sub-stream
  - Network timeout: default waiting time for the operations in Applications on the Web Client
  - 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 and domain name

Log in with the domain user

The user account will be frozen after 5 failed password attempts

The window division is self-adaptive according to the number of cameras under live view or playback

Live view

- View real-time video from the cameras
- PTZ control
- PTZ control lock/unlock
- Public view and private view
- Camera auto-switch/View auto-switch
- Manual recording
- Capture
- Instant playback
- 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, sub-stream, or smooth stream
- View fisheye camera's live view in fisheye dewarping modes
- View detected real-time events in live view

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 thumbnails on the timeline
- Accurate positioning for playback
- Digital zoom
- Video clipping
- Capture
- Camera status detection
- Arming control
- Switch the video stream to main stream, sub-stream, or smooth stream
- Transcoding playback
- Extract frames to play the images one by one

Manage captured pictures and recorded/clipped video files during live view and playback which are stored in local PC

Map control

- View the geographic locations of resources on the map
- Get the live view and playback of the cameras on the map
- Arming control: arm and disarm the cameras, and alarm inputs on the map
- Search and view history alarms of the cameras, and alarm inputs 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
- 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

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 entering 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 clips
- Download the searched video clips

Health monitoring

- Status overview including camera status, encoding device status, VSM status, Recording Server status, and Streaming Server status
- Detailed status page of cameras, encoding devices, Recording Servers, and Streaming Servers
- Set stream type for the resources to main stream, sub-stream, smooth stream, or restore to global stream.

Tools

- VSPlayer
- Broadcast
- Alarm Output
- Two-Way Audio

Download center

- Check the downloading tasks and status
- Continuous transmission on the breakpoint
- Download the player for playing back the video files

Log search

- Search log files of VSM server and cameras that are connected to the system
- Back up log files

System settings

- Configure the general parameters
  - Global Stream: main stream, sub-stream, smooth stream for global usage
  - Set the window proportion threshold for switching between main stream or sub-stream
  - Network timeout: the default waiting time for the Control Client
  - Picture format: JPEG/BMP
  - Maximum mode: Maximize/Full Screen
  - Auto-login
  - Resume last interface
  - Display the number of each window
- Configure the image parameters
  - View scale: full screen or original resolution
  - Window scale: 4:3 or 16:9
  - Video caching: Small (1 Frame), Medium (6 Frames), or Large (15 Frames)
  - Continuous Decoding
  - 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
- 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

Live view

- View real-time video from the cameras
- Set 1/4/9 window division
- PTZ control
- Turn on/off the audio in live view
- Set the video quality
- Manual recording
- Capture
- Two-way audio
- Digital zoom
- Slide on the image to realize fisheye dewarping
- Trigger user-defined event manually

Playback

- Search by date/storage mode
- Provide three storage modes: encoding devices, Hybrid SAN, and Cloud Storage Server
- Play back the recorded video files
- Turn on/off the audio in playback
- Video clipping
- Capture
- Synchronous playback
- Digital zoom
- Switch the video stream to main stream or sub-stream
- Slide on the image to realize fisheye dewarping
- Transcoding playback
- Scale up or scale down the playback timeline bar

Receive alarms

- Receive and display the alarm notification and view the alarm related live video or recording
- Filter alarms by alarm priority, alarm status, alarm category
- View alarm sources on related maps

- Acknowledge alarms

Display the camera details including online status, PTZ control, etc.

Map control (only for tablet)

- View the geographic locations of resources on the map
- Get the live view and playback of the cameras 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
- Locate resource on the map

Search (only for tablet)

- Search video: search tagged video and VCA event related video

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

Software Specification

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

Feature		Performance
General	Cameras	64①
	Alarm Inputs	64
	Alarm Outputs	64
	Recording Servers	64
	Streaming Servers	64
	Areas	64
	Area Hierarchies	5
	Cameras per Area	64
	Alarm Inputs per Area	64
	Alarm Outputs per Area	64
	Email Templates	Unlimited
Event & Alarm	Event and Alarm Rules	3,000
	Storage of Events or Alarms without Pictures	100/s
	Storage of Events or Alarms with Pictures	20/s (Each Picture 500 KB, Stored in VSM Server) 80/s (Each Picture 500 KB, Stored in Recording Server)
	Events or Alarms Sent to Clients	120/s 100 Clients/s **The clients include Control Clients and Mobile Clients.*
	Arming Schedule Templates	200
	Alarm Categories	25
	Alarm Priorities	255
Data Storage	Data Recorded in System	Stored for 3 Years **Including event logs, recording tags, video analysis data, service error logs, service warning logs, and service information logs.*
	Alarm Logs	60 Million
Recording	Recording Schedules	3,000
	Recording Schedule Templates	200
Users and Roles	Concurrent Accesses via Web Clients, Control Clients, and OpenSDK Clients	100
	Concurrent Accesses via Mobile Clients and OpenSDK Clients	100
	Users	3,000
	Roles	3,000
Map	E-maps	1,024
	Map Resolution	8192 × 8192

Feature		Performance
	Hot Regions per Map	64
	Camera Hot Spots per Map	64
	Alarm Input Hot Spots per Map	64
	Alarm Output Hot Spots per Map	64
	Labels per Map	128
	Hot Regions in Total	1,024
	Labels in Total	3,000
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: If the number of the manageable cameras (including the cameras directly added to the VSM and the cameras connected to these added devices) exceeds 3,000, the exceeded cameras cannot be imported to the areas.

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*.

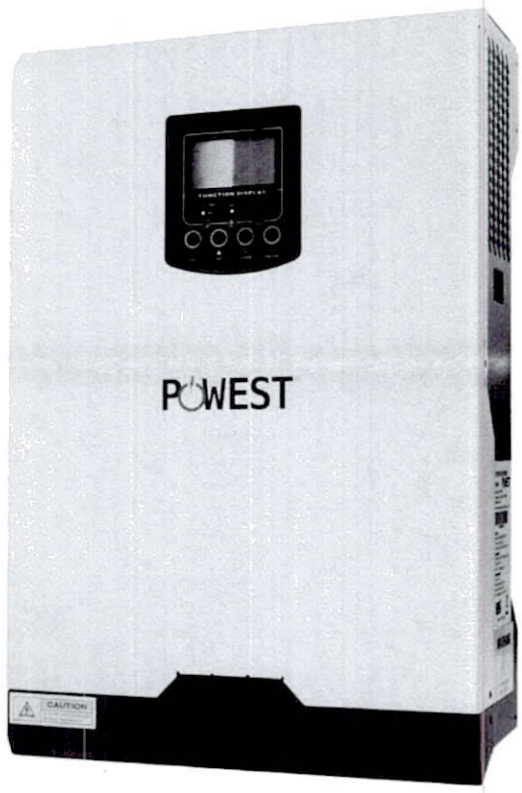
Feature	Description
Processer	E3-1220 V5 (4-Core, 3.0 GHz)
Operating System	Microsoft® Windows Server 2012 R2
Memory	16G DDR4, 2400MT/s UDIMMS
Storage	1T SATA × 2, 3.5" Enterprise SATA 7.2k HDDs; 120GB SATA SSD x1
RAID	H330 RAID Controller with RAID 1
NIC	1GbE × 2
Chassis	1U, Rack Mount
Battery	CR-2032 Coin Cell/Lithium/0.0032kg
Power Supply	250W Cabled PSU
Dimensions (W × D × H)	482.38 mm × 567.92 mm × 42.8 mm (18.99" × 22.36" × 1.69")
Weight	9.5 kg
Dimensions with Package (W × D × H)	750 mm × 614 mm × 259 mm (29.53" × 24.17" × 10.2")
Weight with Package	15.8 kg (34.8 lb)

POWEST®

7'6
684

POWEST

UPS Híbrida 1 - 3 Kva



Los sistemas inteligentes de gestión de energía POWEST están equipados con un controlador MPTT que gestiona de manera eficiente la energía de sistemas de baterías, paneles solares, generadores eólicos y red eléctrica; logrando un sistema aislado sin cortes de luz, capaz de trabajar en 19 modos diferentes según la necesidad y la prioridad, equipado con un cargador inteligente que detecta el tipo de batería que se esté implementando.

- Señal de salida onda senoidal pura
- Capacidad de carga solar MPPT controlador
- Rango de tensión de entrada seleccionable para los electrodomésticos y ordenadores personales
- Selección de corriente para carga basado en aplicaciones
- Configurable AC / prioridad de entrada solar a través de ajuste de LCD
- Compatible con la tensión de red o de un generador
- Auto reinicio mientras que el AC se está recuperando
- Protección de sobrecarga y cortocircuito
- Diseño del cargador de batería inteligente, para un rendimiento optimizado de la batería
- Función de arranque en frío
- Funcionamiento en paralelo hasta con 6 unidades

POWEST®

ESPECIFICACIONES TÉCNICAS UPS HIBRIDA		
Capacidad	1KVA 12V	3KVA 24V
Especificaciones de Entrada		
Topología de entrada	Monofásica	
Voltaje nominal de entrada	120VAc	
Cantidad de hilos	3 (Fase +Neutro +GND)	
Voltaje permitido por el rectificador	95 -140 vac	
Rango de frecuencia de entrada	50Hz o 60Hz (Deteccion Automatica)	
Limitación de corriente de entrada	150% sistema inversor y bypass	
Conexión	Bornera	
Especificaciones de Salida		
Topología de salida	Monofásica	
Voltaje nominal de salida	120VAC	
Factor de potencia de Salida	0.8	
Potencia W	1000VA/800W	3000VA/2400 W
Tipo de onda de salida	Senoidal pura	
Otros voltajes de salida configurables	110/120VAC	
Tiempo de transferencia	10 / 20 ms	
Cantidad de hilos	3(Fase +Neutro+GND)	
Regulación de voltaje	<+/-5%	
Sobre tension de energía	2 * Potencia Nominal por 5 Segundos	
Frecuencia nominal de salida	50Hz/60Hz	
Capacidad de sobrecarga	5s@≥150% de carga, 10s@110%~150% de carga.	
Protecciones corto circuito	Modo línea: Fusible Modo Bateria: Circuito electronico	
Conexión	Bornera	
Eficiencia	Modo Linea 90%	
Especificaciones de las Baterías		
Tipo de baterías	VRLA / GS / FT / OPz / GEL	
Voltaje DC	12VDC	24VDC
Especificaciones de Cargador Red		
Corriente	10/20 A	20/30 A
Voltaje de carga flotación	13 5VDC	27VDC
Protección de sobre voltage	15.5VDC	31VDC
Especificaciones de Cargador Solar		
PotenciaW	500W	1500W
Eficiencia	98%	
Max PV VOC	102VDC	145VDC
Rango de Operación PV MPPT	15~80DC	30~115VDC
Min Voltaje de Batería para PV caragdor	8.5VDC	17VDC
Especificaciones Cargador Red y Solar		
Max Corriente de carga	60A	90A
Configuracion por defecto	40A	60A
Especificaciones Fisicas		
Dimensiones (Altura x Ancho x Profundo)	316 x 240 x 95 mm	479 x 295 x 140 mm
Peso Neto Kg (Sin Baterías)	5.2	11,5
Display LCD	Display LCD todos los parámetros	
	Condiciones de la carga capacidad de la Batería alarmas visuales y auditivas. Estado de operación del UPS (bypass, Linea, Baterías, Falla)	
Conexión de Baterías Externo	Conector bornera	
Interface	La UPS puede ser monitoreada por un PC via USB	La UPS puede ser monitoreada por un PC via RS232-USB
Tarjeta de red	NA	Para monitoreo y gestión a través de SNMP (Opcional solo 3KVA)
Conexión Paralelo	NA	hasta 6 unidades
Software	software Windows XP, Windows , Linux	
Gabinete	Tipo pared(indoor) NEMA Tipo 1	
Especificaciones Ambientales		
Humedad	5% ~ 95% sin condensacion	
Temperatura de Operación	0°C ~ 55°C	
Temperatura de almacenamineto	0°C ~ 55°C	

* Sujeto a modificaciones sin previo aviso, según requerimiento del cliente, según disponibilidad de inventario y/o bajo pedido en ... rden * Fotos de referencia ... accesorios se venden por separado

DS-AJ7824D

Enterprise-class SAS Enclosure



Introduction

DS-AJ SAS enclosure is a storage system for large-scale video surveillance. Expanding storage quickly and a high reliable system are helpful to reduce the cost. The device provides high reliability feature, including hot swap HDD, redundant power supply, redundant fan and so on.

Available Models

DS-AJ7824D

Main Features

- Mini SAS 3.0 with transmission ability 4 times faster than 12G.
- Support cascading expansion.
- Support SAS HDD interfaces
- Up to 8TB capacity for each HDD.

Specifications

Models		DS-AJ7824D
Controller Parameters	Controller	2Controller
	SAS Interface (Upper-level)	2(12Gbps)
	SAS Interface (Lower-level)	1 (12Gbps)
	HDD Interfaces	24
	HDD Interface Type	SAS
	Hot Swap HDD	Supported
	Power	Redundant (1+1)
	Applicable Models	DS-A82024D
General	Chassis	4U Chassis
	Dimension (W × D × H)	447 × 172 × 525mm
	Wight (without hard disk)	30 kg
	Consumption (with max. hard disks)	≤ 550 W
	Working Temperature	5℃ ~ 40℃ (41℉ ~ 104℉)
	Storage Temperature	-20℃ ~ +70℃ (-4℉ ~ +158℉)
	Working Humidity	20% ~ 80% (With no icing and condensation)
	Storage Humidity	5% ~ 90%RH (With no icing and condensation)

INFORME DE DIAGNÓSTICO DEL ANILLO PRINCIPAL DE FIBRA ÓPTICA DEL SISTEMA DE CCTV DE YOPAL.

7/9
688

ITEM B

ACTUALIZACIÓN DE DIAGNÓSTICO Y OPTIMIZACIÓN DEL ANILLO PRINCIPAL DE FIBRA DEL SISTEMA DE CCTV DE YOPAL

CONTRATO DE PRESTACION DE SERVICIOS N° 2232 DE 28 DICIEMBRE DEL 2020

OBJETO: OPTIMIZACION Y MEJORAMIENTO DE LAS TECNOLOGIAS PARA LA VIDEO VIGILANCIA Y SISTEMAS DE RECEPCION DE DENUNCIA DE DELITOS Y EMERGENCIAS EN EL DEPARTAMENTO DE CASANARE.

CONTRATISTA: CONSORCIO CCTV CASNARE 2020
R/L GIOVANY JAVIER CAMACHO RONCANCIO

INTERVENTORIA: ALVARO OROZCO
CONTRATO DE CONSULTORIA No. 2200 del 2020

TABLA DE CONTENIDO

I. Verificación y actualización de la información según estado actual.
II. Diagnóstico definitivo y alternativa de solución.
III. Propuesta definitiva.
IV. Conclusiones
V. Anexos.