



Video & Audio Surveillance

HawkCentral V1.0.0 Datasheet

Introduction

HawkCentral is an intelligent management platform. It focuses on data application, data collection, storage, processing, and intelligent applications. It provides data integration, storage and analysis of multidimensional data in the scenario of Edge Domain and Cloud Center, integrated with technologies of Artificial Intelligence and Internet-of-Things (IoT).



Key Components

- Server Modules:

Module ID	Module Name
HawkCentral -VAS	Video System Management
HawkCentral -METIS	Application of Electronic Map
HawkCentral -VPS	Video Parsing application
HawkCentral -FAS	Face Application
HawkCentral -BMS	Vehicle Application
HawkCentral -IBODY	Human Body Application
HawkCentral -ARHIGHNUM	AR Scenario Number
HawkCentral -LANE	Vehicle Lane
HawkCentral -VIDEO	Video Channel
HawkCentral -VIOLATION	Violation Management

- Web Client/Control Client/Plug-in Assistants/AR Client

System Requirements

Feature	Description
OS for Server	Linux Centos7.4
OS for Control Client	Microsoft® Windows 7 (32/64-bit) Microsoft® Windows 10 (32/64-bit)
Browser Version	Chrome 68 and above

Function Features

Platform

- Intelligent Platform Management
 - Supports on-stop installation, parameter configuration, server monitoring, and log analysis.
 - Supports cluster management and authorization management.
- Intelligent Scheduling
 - Supports dynamic scheduling of computer resources based on the integrated management of computers.
 - Supports accessing multiple types of storage devices and the integrated management of storage devices.
 - Compatible with devices of multiple manufacturers and algorithms of multiple versions.
- Open Platform: Supports integrating with third-party infrastructure, data, platform, and applications based on open standards.
- Comprehensive Security Mechanism: Provides security mechanism for device, network, host computer, data, and applications, and supports multiple security control schemes.

Web Client

- Video Application
 - E-map: Supports basic video application (video plan, video tracking, video linkage, three-circle monitoring, etc.), data analysis application (pattern analysis and area comparison), GPS application (route plan, GPS positioning, video relay, etc.), and situation analysis (alarm view and flow heat map).
 - Video Search: Supports live video, video footage search, camera search, Favorites, and video plan management.
 - Video Parsing: Supports parsing the live videos and history videos.
 - Device Alarm Search
 - ◆ Supports displaying alarm information of all alarm devices, including device type, device name, alarm type, and alarm time.
 - ◆ Supports filtering alarm information by device type, device name, device No., alarm type, etc.
 - ◆ Supports view alarm details, including the basic information of the alarm and the alarm related picture (the picture can be enlarged).
 - VCA Alarm Search
 - ◆ Supports displaying all VCA alarm information, including analysis type, device name, alarm type, and alarm time.
 - ◆ Supports filtering alarm information by analysis type, device name, alarm type, and alarm time, etc.
 - ◆ Supports viewing alarm details, including basic information of the alarm and the alarm related picture (the picture can be enlarged).
 - Alarm Search
 - ◆ Supports viewing current day alarms, total alarm amount, and amount of each type of alarms, which includes alarm about resource status, recording exception, video quality, and others.
 - ◆ Supports viewing alarm details, and other operations including acknowledging, deleting, exporting and refreshing alarms, etc.
 - ◆ Supports filtering alarms by alarm status, alarm source name, and alarm source, etc.
 - Report Analysis: Supports generating area overview report, video quality report, recording status report, streaming status report, camera status report, and video retention status report.



Control Client

- Video Wall
 - Supports dividing video wall evenly into 1, 4, 6, 8, 9, or 16 windows.
 - Supports jointing or cancel jointing of windows, opening window (i.e., open a layer of image to show the live image of a specific camera), roaming (i.e., drag window to adjust its size and position), and resizing a video wall screen to the whole video wall.
 - Supports video wall image layer operations, such as sticking a specific image to the top or to the bottom.
 - Supports dragging a specific camera to a window of the video wall to display the camera's live video.
 - Supports audio control, PTZ control, configuring storage location and storage type, and local playback by the selected date.
- Smart Linkage
 - Supports automatically detecting moving objects in the images and highlight the objects by red or green frames.
 - Supports locating object in red frame through PTZ camera.
 - Supports selecting object in green frame and relocating it through PTZ camera, and then tracking the target.
 - Supports selecting an area in the images of the fixed camera, and then the PTZ camera will locate and track the area.
- Real-Time Video Alarm
 - Supports temporarily disarm alarm cameras and batch deleting alarm information.
 - Supports displaying the alarm details, including alarm name, alarm priority, alarm source, alarm type, alarm time, etc.
 - Supports viewing the live video of the selected alarm cameras and the video footage recorded during the alarm time.
 - Supports filtering alarms by alarm name, alarm type, alarm priority, and alarm time.

Operation and Management Center

- Parameter Configuration
 - Center Server Configuration
 - ◆ Supports configuring parameters for components and servers.
 - ◆ Supports detecting port conflicts.
 - ◆ Supports verifying the validity of the user-specified parameter values.
 - Local Server Configuration
 - ◆ Supports configuring parameters for local servers and components of the servers, and setting the parameters to be consistent with the corresponding parameters of the Operation and Management Center or not.
 - ◆ Supports detecting port conflicts.
 - ◆ Supports verifying the validity of the user-specified parameter values.
 - Center Alarm Configuration
 - ◆ Supports adjusting the alarm strategy
 - ◆ Supports restoring the alarm strategy to its default value.
 - Local Alarm Configuration
 - ◆ Supports adjusting alarm strategy, which can be inconsistent with alarm strategy of the Operation



- and Management Center.
- ◆ Supports restoring the alarm strategy to the value same with the alarm strategy of the Operation and Management Center.
- Time Synchronization Configuration
 - ◆ Supports setting NTP service in central management server or external servers.
 - ◆ Supports automated time synchronization by server.
 - ◆ Supports manual synchronization.
- Multi-Domain Configuration
 - ◆ Supports filtering by service name, server name, port, and keywords.
 - ◆ Supports creating new domains.
 - ◆ Supports editing the multi-domain configuration of a specified service.
- Software Running Status Monitoring
 - Displaying Status in Chart and List
 - ◆ Supports displaying the topology and running status of the servers and components in charts, as well as alarms and status statistics.
 - ◆ Supports displaying the running status of the current server and component on video wall.
 - ◆ Supports scoring system running status.
 - ◆ Supports statistics of server online rate and relevant details.
 - ◆ Supports statistics of alarms (handled, ignored, and unhandled) in recent 7 days.
 - ◆ Supports statistics of active users in recent 7 days.
 - Server Status Monitoring
 - ◆ Supports viewing the status of the servers, including CPU usage, memory usage, HDD usage, etc.
 - ◆ Supports viewing alarms and handling alarms.
 - ◆ Supports displaying the records of maintenance for software.
 - ◆ Supports viewing the basic information of the servers.
 - Component Status Monitoring
 - ◆ Supports viewing the running status of the components, including CPU usage, and memory usage.
 - ◆ Supports enabling/disabling services within components.
 - Enabling/Disabling Service
 - ◆ Quickly enabling, disabling, or rebooting all services or the selected ones.
 - ◆ Enabling, disabling, or rebooting a single service.
- License Management
 - Supports activating new product license, managing activated license file or activation code, deactivating license, and expanding license capacity.
 - Supports viewing the current license status, including the authorized items and corresponding values.
- Service Management
 - Supports searching services by components, service type, server and keywords.
 - Supports manually adding services, and other operations such as editing, viewing and deleting services.
- Person Group Management
 - Supports manually adding person information.
 - Supports batch importing person information.
 - Supports exporting person information.
- Data Backup
 - Supports manually backing up all data or the data of the specified components. And the backed-up data can be manually deleted.
 - Supports automatic backup and setting automatic backup strategy.



Software Specification

The following table shows the maximum performance of the HawkCentral.

Note: All the data below is tested by 4 servers (64 GB RAM each)

Features		Performance
General	Maximum concurrent logins via Web Client	240
	Maximum concurrent logins via PC Client	240
	Maximum concurrent online users of the platform	8,000
	Time for single user login	≤2 seconds
Video Center	Maximum concurrent users loading organization tree in Video Patrol module	240
	Average response time for searching cameras	≤1 second
	Average response time for loading organization tree on the Web Client	≤1 second
	Average response time for loading zoomed map	≤3 seconds
	Average response time for searching cameras on the organization tree on map.	≤1 second
	Average response time for searching cameras within the drawn rectangle on map	≤1 second
	Average response time for loading E-map	≤3 seconds
	Time for search 1,000,000 historical GPS data	≤5 seconds
System Configuration	Time for redirecting to the Department Management page	≤2 seconds
	Time for redirecting to the User Management page	≤2 seconds
	Time for redirecting to the Role Management page	≤2 seconds
	Maximum exportable results of duplicate check for a single time of exportation.	2,000
	Maximum departments	10,000
	Maximum roles	30,000
	Maximum users	100,000
	Maximum cameras	500,000
Maximum devices (current cascading level)	100,000	



Hardware Specification

Processor	Up to two Intel® Xeon® SP, up to 28 cores per processor This model is configured two Intel® Xeon® SP(4114x2)	
Memory	24 DDR4 DIMM slots, Supports RDIMM /LRDIMM, speeds up to 2666 MT/s, 3 TB max Up to 12 NVDIMM, 192 GB Max Supports registered ECC DDR4 DIMMs only This model is configured 64G DDR4 DIMM	
Storage Controllers	(Optional) Internal controllers: PERC H330, H730p, H740p, HBA330, Software RAID (Optional) (SWRAID) S140 Boot Optimized Storage Subsystem: HWRAID 2 × M.2 SSDs 120 GB, 240 GB (Optional) External PERC (RAID): H840 (Optional) External HBAs (non-RAID): 12 Gbps SAS HBA This model is configured PERC HBA	
Drive Bays	Front drive bays: up to 8 × 3.5" SAS/SATA HDD max 80TB, Optional DVD-ROM, DVD+RW This model is configured 600G SAS 15K × 4	
Power Supplies	Titanium 750W, Platinum 495W, 750W, 1100W, 1600W 48VDC 1100W, 380HVDC 1100W, 240HVDC 750W (China/Japan) Hot plug power supplies with full redundancy and Up to 6 hot plugs fans with full redundancy This model is configured 495W(1+1)	
Sizing	Form factor: Rack (2U) Chassis depth: 715.5 mm	
Embedded Management	IPMI 2.0 compliant iDRAC9 with Lifecycle Controller (Express, Enterprise) Quick Sync 2 wireless module optional	
OpenManage™ Software	OpenManage Enterprise OpenManage Essentials	OpenManage Mobile OpenManage Power Center
Net Weight	26.5kg	
Integrations and Connections	Integrations: Microsoft® System Center, VMware® vCenter™, BMC Software Connections: Nagios & Nagios XI, Oracle Enterprise Manager,	HP Operations Manager, IBM Tivoli® Netcool/OMNIBus, IBM Tivoli® Network Manager, CA Network and Systems Management
Security	TPM 1.2/2.0 optional Cryptographically signed firmware Secure Boot	System Lockdown Secure erase
I/O & Ports	Network daughter card options: 4 × 1GE or 2 × 10GE + 2 × 1GE or 4 × 10GE or 2 × 25GE This model is configured 4 × 1GE Front ports: Video, 2 × USB 2.0, available USB 3.0, dedicated iDRAC Direct Micro-USB Rear ports: Video, serial, 2 × USB 3.0, dedicated iDRAC network port Video card: VGA	
GPU Options	Nvidia Tesla P100, K80, K40, Grid M60, M10, P4 Quadro P4000. AMD S7150, S7150X2 This model is not configured by default	
Supported Operating Systems	Canonical® Ubuntu® LTS Citrix® XenServer® Microsoft Windows Server® with Hyper-V Red Hat® Enterprise Linux SUSE® Linux Enterprise Server VMware® ESXi	



The DS-V0220 was designed to accelerate application performance leveraging accelerator cards and storage scalability. The 2-socket, 2U platform has the optimum balance of resources to power the most demanding environments.



Expand and optimize application performance

The scalable business architecture of the DS-V0220 can scale up to three 300W GPU's or six 150W GPU's. With up to 8 3.5" drives the DS-V0220 provides the versatility to adapt to virtually any application and provides the perfect platform for VDI deployments.

- Scale your VDI deployments with 3 double-width GPUs.
- Free up storage space using internal M.2 SSDs optimized for boot.
- Scale compute resources with Intel® Xeon® SP delivering a 27% increase in processing cores and 50% increase in bandwidth over previous generation of Xeon processors.

Automate systems management with OpenManage

Combined with unique agent-free management capabilities, the DS-V0220 is simply managed, freeing up time for high profile projects.

- Simplify management with the New OpenManage Enterprise™ console, with customized reporting and automatic discovery.
- Take advantage of QuickSync 2 capabilities and gain access to your servers easily through your phone or tablet.



Processor	Up to two Intel® Xeon® SP, up to 28 cores per processor This model is configured two Intel® Xeon® 4110	
Memory	24 DDR4 DIMM slots, Supports RDIMM /LRDIMM, speeds up to 2666MT/s, 3TB max Up to 12 NVDIMM, 192 GB Max Supports registered ECC DDR4 DIMMs only This model is configured 64G DDR4 DIMM	
Drive bays	Front drive bays: up to 8 x 3.5" SAS/SATA HDD max 80TB, Optional DVD-ROM, DVD+RW This model is configured 1T 7.2K SATA×2(RAID_1)	
Power supplies	Titanium 750W, Platinum 495W, 750W, 1100W, 1600W 48VDC 1100W, 380HVDC 1100W, 240HVDC 750W (China/Japan) Hot plug power supplies with full redundancy and Up to 6 hot plugs fans with full redundancy This model is configured 495W(1+1)	
Sizing	Form factor: Rack (2U)	Chassis depth: 715.5 mm 715.5 × 482 × 86.8 mm (28.2 × 19.0 × 3.4 inch)
OpenManage™ Software	OpenManage Enterprise OpenManage Essentials	OpenManage Mobile OpenManage Power Center
Integrations and connections	Integrations: Microsoft® System Center, VMware® vCenter™, BMC Software Connections: Nagios & Nagios XI, Oracle Enterprise Manager,	HP Operations Manager, IBM Tivoli Netcool/OMNibus, IBM Tivoli® Network Manager, CA Network and Systems Management
Net weight	26.5kg	
Security	TPM 1.2/2.0 optional Cryptographically signed firmware Secure Boot	System Lockdown Secure erase
I/O & Ports	Network daughter card options: 4 x 1GE or 2 x 10GE + 2 x 1GE or 4 x 10GE or 2 x 25GE This model is configured 4 x 1GE Front ports: Video, 2 x USB 2.0 Rear ports: Video, serial, 2 x USB 3.0 Video card: VGA*1	
GPU options	Nvidia Tesla P100, K80, K40, Grid M60, M10, P4 Quadro P4000. AMD S7150, S7150X2 This model is not configured by default	
Working temperature	+5°C to +35°C (41°F to 95 °F)	
Supported operating systems	Canonical® Ubuntu® LTS Citrix® XenServer® Microsoft Windows Server® with Hyper-V Red Hat® Enterprise Linux SUSE® Linux Enterprise Server VMware® ESXi	



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