DAHUA TECHNOLOGY

24 HDD Enterprise Video Storage
RAID Support

- High-performance Intel Processor
- 512 Channels at 2 Mbps of Video Recording plus 256 Channels Video Transfer, maximum (Dahua Protocol)
- 1024 Mbps Incoming/Recording Bandwidth, maximum
- 24 HDDs, SAS/SATA, Hot-Swap
- Supports RAID 0/1/3/4/5/6/10/50/60/JBOD, Hotspare
- Supports Standard iSCSI Protocol for Expanded Storage Space
- Modular Design
- Redundant Power
- Five-year Warranty*

System Overview

The DHI-EVS7024S-R Enterprise Video Storage device offers unparalleled storage technology. It is designed and developed to meet the needs of medium-range to high-end IP video surveillance applications; and supports 768 IP camera channels with 1536 Mbps incoming/recording/forwarding bandwidth.

Combined with hot-swap power supplies, fans, and hard disk drives, the EVS offers Enterprise Class availability. This EVS is ideal for a wide range of applications including public safety, transportation, government institutions, hotels, shopping malls, city centers, and financial institutions that demand flexibility, reliability, and centralized storage management.

This EVS is compatible with numerous third-party devices making it the perfect solution for surveillance systems with or without a video management system (VMS). Its open architecture supports multi-user access and is compatible with ONVIF 2.4.

Functions

Modular Design
The Enterprise Video Storage is rack mountable and designed to manage up to 76 channels of digital video for scalability. Powered by Intel® technology, the unit features dual redundant power supplies, redundant fans and a hot-swappable configuration to ensure stability.

Storage Extension Capacity
Local extension, connect to ESS extension storage by mini SAS interface. Extension storage support redundant power and RAID.

RAID Support
The Enterprise Video Storage device provides the processor and RAID enclosure in one chassis, resulting in both space and cost savings. RAID 0/1/3/4/5/6/10/50/60 support is available through a hardware-based RAID controller that removes the loading on the processor that software RAID can bring. A convenient web browser interface is used to manage the RAID controller.

Video Recording Capability
The Enterprise Video Storage device not only stores video data but is capable of simultaneous record, playback, live view and transmission of IP video. The device records 512 channels at 2 Mbps plus 256 channels of video transfer

N+M Hot Standby
The highly reliable redundancy N+M Hot Standby design provides a secure, failover technique ensuring immediate backup. In the event of a system failure, the slave instantly takes over the master ensuring no data is lost.

Automatic Network Replenishment (ANR) Technology
Video storage devices with the ANR function automatically store video data on an IP camera SD card when the network is disconnected. After recovery of the network, the NVR automatically retrieves the video data stored on the camera.

Interoperability
The EVS conforms to the ONVIF (Open Network Video Interface Forum) and to the CGI specifications, ensuring interoperability between network video products regardless of manufacturer.

Environmental
The storage device features a wide operating temperature range of 0° C to +40° C (+32° F to +104° F) and a working altitude range of 60 m below sea level to 5000 m above (196.85 ft to 16,404.20 ft).

ONVIF

Technical Specification

System

Main Processor	64-bit High-performance Intel Processor
Controller	Single Controller
Memory	8 GB by default (expandable to 16 GB)
Operating System	Embedded LINUX
User Interface	Web-based

Working Mode

IP SAN Mode	Storage bandwidth shall not be less than 3.6 Gbps

Storage

HDD Capacity	24 HDDs, Up to 10 TB capacity for each HDD SAS/SATA HDD composite connection
Mini-SAS	Two (2) Ports, for storage extension
HDD Installation	Additional HDD Bracket, HDD Hot-swap, HDD Online Replacement
HDD Mode	Single, RAID 0/1/3/4/5/6/10/50/60 (Enterprise-level HDDs are recommended), JBOD, Hotspare

Storage Management

HDD Manager	Non-working HDD hibernation guarantees sound ventilation, reduced power consumption, and enhanced HDD life HDD bad track mapping to enhance HDD life span
RAID Rebuild	Dynamically adjust RAID rebuild speed to guarantee system load balance
Logic Volume Manager	iSCSI volume management, NAS (SMB/NFS/FTP) volume management
Snapshot	Snapshot function creates user volume to back data
Extract Frame	Extracting P-frame function. Customized extracting period and frame rate setup.
Cluster Service	N+M cluster service
Automatic Network Replenishment	After disconnection, system downloads record file from the SD card on the network camera to maintain the full record file
Shortcut RAID Creation	One-button RAID creation

Playback and Backup

Search Mode	Time/Date, Channel, Alarm, MD and Exact Search (accurate to one second)
Playback Function	Play, Pause, Stop, Fast play, Slow play, Full screen, Backup selection, Digital zoom
Backup Mode	USB Device, Network, eSATA Device

Third-party Support

Third-party Support	Dahua, AEBell, Arecont, AXIS, Dynacolor, HIKVISION, LG, Panasonic, PSIA, Samsung, Sony, Vivotec

Recording

IP Camera Input	768 Channels
Record Rate	1024 Mbps
Video Recording Performance	
Dahua Protocol	512 ch at 2 Mbps plus 256 ch video transfer
ONVIF Protocol	400 ch at 2 Mbps plus 100 ch video transfer
Image Recording Performance	250 ch (image size 500 kb), no video recording
Record Mode	Manual, Schedule (Regular, Continuous), Motion Detection, Alarm
Record Interval	1 min to 120 min (default 60 min) Pre-record 1 s to 30 s, Post-record 10 s to 300 s, I-frame storage by period.

Auxiliary Interface

USB	One (1) USB 3.0
Multiplex Interface	One (1) USB 2.0 plus eSATA multiplex interface
RS232	One (1) Port, for PC communication and keyboard
RS485	One (1) Port, for PTZ control
Alarm	Input: Four (4) Channels Output: Four (4) Channels

Network

Interface	One (1) Management Port, RJ-45 (10/100/1000 Mbps) Four (4) Data Ports, RJ-45 (10/100/1000 Mbps)
Network Mode	Multi-address, Fault-tolerance, Load balance, Link aggregation
Network Function	HTTP, HTTPs, TCP/IP, IPv4/IPv6, UPnP, RTP, RTCP, RTSP, UDP, SMTP, NTP, DHCP, DNS, IP Filter, PPPoE,DDNS, iSCSI, SMB, NFS, FTP, Alarm Server, IP Search
Expansion Interface	2 GB Optical Fiber Interface
Max. User Access	128 Users
Smart Phone	IOS, Android
Interoperability	ONVIF 2.4, CGI Conformant

Electrical

Power Supply	100 VAC to 240 VAC, 47 to 63 Hz 1 + 1 Redundant power, Hot-swap
Power Consumption	200 W to 400 W (with HDD)
Fan	12 VDC, 1.5 A, Diameter 80 mm MTBF: > 100,100 hours, Hot-swap

Environmental

Working Conditions	0° C to +40° C (+32° F to +104° F), 10 % to 80% RH
Storage Conditions	−20° C to +70° C (−4° F to +158° F), 5% to 90% RH
Working Altitude	−60.0 m to 5000.0 m (196.85 ft to 16,404.20 ft)

Construction

Chassis	1.20 mm extra-thick, hot-dip galvanized steel, High accuracy aluminum alloy slider, Patented, removable HDD bracket
Dimensions (W x D x H)	4U, 482.60 mm x 494.0 mm x 175.0 mm (19.0 in. x 19.45 in. x 6.89 in.)
Net Weight	27.0 kg (59.50 lb), without HDD
Gross Weight	38.0 kg (83.80 lb)
Installation	Standard 19-in. rack installation

Certifications

CE	EN55022, EN55024, EN50130-4, EN60950-1
Electromagnetic Compatibility	FCC CFR 47 Part 15 Subpart B ANSI C63.4-2009
UL	UL 60950-1 CAN/CSA C22.2 No.60950-1

Ordering Information

Type	Part Number	Description
24-HDD Video Storage Device	DHI-EVS7024S-R	24-HDD Enterprise Video Storage