dahua
TECHNOLOGY

DHI-EVS7124D
Embedded Video Storage

- Dual-controller, Active-Active
- 64-bit High-performance multi-core processor
- Max 512-ch IP camera inputs
- Max 1024 Mbps incoming/recording/forwarding bandwidth
- 24 HDDs, SAS, Hot-Swap
- Supports RAID 0/1/5/6/10/50/60, JBOD, Hot spare
- Supports video stream/ Picture direct storage mode and IPSAN storage mode
- Supports Automatic Network Replenishment (ANR)
- SAS cascade for expanded storage space
- Modular and drawer-like design
- 1+1 redundant 80PLUS platinum power supply
- BBU battery (Optional) for abnormal power failure

System Overview

DHI-EVS7124D offers unparalleled storage technology. It is designed and developed to meet the needs of medium-range to high-end IP video surveillance applications. It supports 512 channels of IP camera inputs, and 1024Mbps incoming/recording/forwarding bandwidth.

Combined with hot-swap power supplies, fans and hard disk drives, the EVS offers real Enterprise Class availability. The EVS supports dual-controller Active-Active mode, ensuring no video loss during main-sub switch.This EVS is ideal for a wide range of applications such as public safety, transportation stations, government institutions, hotel resorts, shopping malls, city centers, and financial institutions, where demand expansion flexibility, high 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

All key modules are hot-swap and redundant configuration. Redundant fans, redundant power, and multi-redundant design ensure stability. The brand new design for disk carrier ensures good cooling, stability and safety for hard disks.

Storage Extension Capacity

Local extension, connecting to expansion storage cabinet by mini SAS interface. Extension storage supports redundant power and RAID.

RAID 0/1/5/6/10/50/60

Offering a balance between storage performance, storage capacity, and data integrity, the EVS features fruitful RAID 0/1/5/6/10/50/60 for faster and safer recording.

Dual-controller Hot Standby

There is a main controller and a standby controller (hardware redundancy). The standby controller is always active, and will automatically take over the business when the main controller goes wrong.
In the Active-Active mode, after standby-controller real-time transmission service is enabled, the standby server pulls streams and there is no video loss during main-sub switch.

ANR (Automatic Network Replenishment Technology)

Video is recorded in SD card in IP cameras when the network breaks down, and after the network is recovered, the video will be transferred to EVS and then recorded on it.

ONVIF

Technical Specification

System

Main Processor	64-bit multi-core processor
Operating System	Embedded Linux
Operation Interface	Web
Controller	Dual-controller
RAM (Single Controller)	16 GB by default (extendable to 64 GB)
Power Redundancy	1+1

External Ports

SAS(Single Controller)	2 mini SAS HD ports with maximum speed 12Gb/s
Network (Single Controller)	1×1GbE management port; 4×1GbE LAN ports
Network Extension (Single Controller)	4×1-GbE LAN ports; 2×10-GbE optical fiber ports
eSATA(Single Controller)	1×eSATA
RS-232(Single Controller)	1×DB9
HDMI(Single Controller)	1×HDMI

Internal Expansion

M.2 SSD(Single Controller)	2×NVMe SSD ports
PCI-E(Single Controller)	1×PCI-E X8; 1×PCI-E X4
Disk(Single Controller)	1×2.5 inch SATA

Disk

Disk Bay	24
Disk Type	1TB; 2TB; 3TB; 4TB; 5TB; 6TB; 8TB; 10TB; 12TB; 14TB; 16TB; 2.5-inch and 3.5-inch HDD Support simultaneously connecting to SAS/SSD
Disk Installation	Independent disk tray
Hot Swapping	Support
RAID Type	RAID0, 1, 5, 6, 10, 50, 60, JBOD, Hot-Spare
Disk Processing	Dad sector mapping
Disk Management	Non-working disks automatic sleep
Disk Inspection	Inspection before use and during use

Performance

Video Direct Storage (Private Protocol)	Up to 512-channel (1024 Mbps) access, storage, and forwarding; 32-channel (64 Mbps) online playback
Video Direct Storage (ONVIF)	Up to 512-channel (1024 Mbps) access, storage, and forwarding; 32-channel (64 Mbps) online playback
Video Direct Storage (Auto Register)	Up to 512-channel (1024 Mbps) access, storage, and forwarding; 32-channel (64 Mbps) online playback
Picture Direct Storage	Up to 512-channel access, storage, and forwarding (250 KB/Picture)
IPSAN Performance	Write-through: 900 Mbps Write-back: 1200 Mbps

Function

IPSAN Mode	Yes
IPSAN Function	Dynamic online extension of logic volumes
Video Storage	Direct storage
Network Protocol	RTP; RTCP; RTSP; UDP; HTTP; NTP; SNMP; iSCSI
RTSP	ONVIF; GB28181
Controller Mode	Dual-controller, active-active
Automatic Network Replenishment (ANR)	Videos during network failure upload to EVS automatically afterwards
Network Mode	Link aggregation, fault tolerance
Quick RAID	Yes
RAID Instant Use	Yes
RAID Rebuilding	Self-adaptive rebuilding
RAID-write Synchronization	Yes
Record Mode	Scheduled, manual, motion-triggered and alarm triggered
Video Playback	Web playback, concentrated playback, slice playback, synchronous playback Search video by second Adjustable playback speed
Video Codec	Access by cameras with encoding formats of MPEG4, MJPEG, H.264, H.265, and SVAC Access by multi-sensor cameras, thermal cameras, and panoramic cameras
Video Backup	Back up video through USB, network, and eSATA

General

Power Supply	100–127V/200–240V AC, 50/60Hz, 5A/2.5A
Fan	Dual ball-bearing fans
Power Consumption	<500W (include disks)
Operating Temperature	0°C to 45°C (32°F to 113°F)
Operating Humidity	10%–80% (RH) (non-condensation)
Storage Temperature	−20°C to +70°C (−4°F to 158°F)
Storage Humidity	5%–90% (RH) (non-condensation)
Operating Altitude	≤5000 m
Certifications	CE: EN 55024; EN 55032; EN 55035; EN 50130-4; EN 61000-3-2; EN 61000-3-3; EN 62368 FCC: ANSI C63.4, 47 CFR PART 15B Subpart B
Chassis	1.2 mm hot dip galvanized steel plate Independent developed pull-out disk tray
Dimensions	With hanger: 482.6 mm × 175 mm × 736.5 mm (19" × 6.89" × 29")(W × H × D) Without hanger: 446 mm × 175 mm × 736.5 mm (17.56" × 6.89" × 29")(W × H × D)
Net Weight	29 kg (63.93 lb)
Gross Weight	44 kg (97 lb)
Installation	Standard 19 inch rack

EVS Series | DHI-EVS7124D

Ordering Information

Type	Model	Description
24-bay EVS	DHI-EVS7124D	24-bay Embedded Video Storage
24-bay ESS	ESS3124D-JR	24-bay Expansion Storage Cabinet

Expansion Storage Cabinet