

A long-exposure photograph of a multi-lane bridge with a white steel truss structure. The sun is low on the horizon, creating a bright, golden glow that illuminates the bridge's surface and creates a lens flare effect. The road surface shows motion blur, suggesting traffic moving across the bridge.

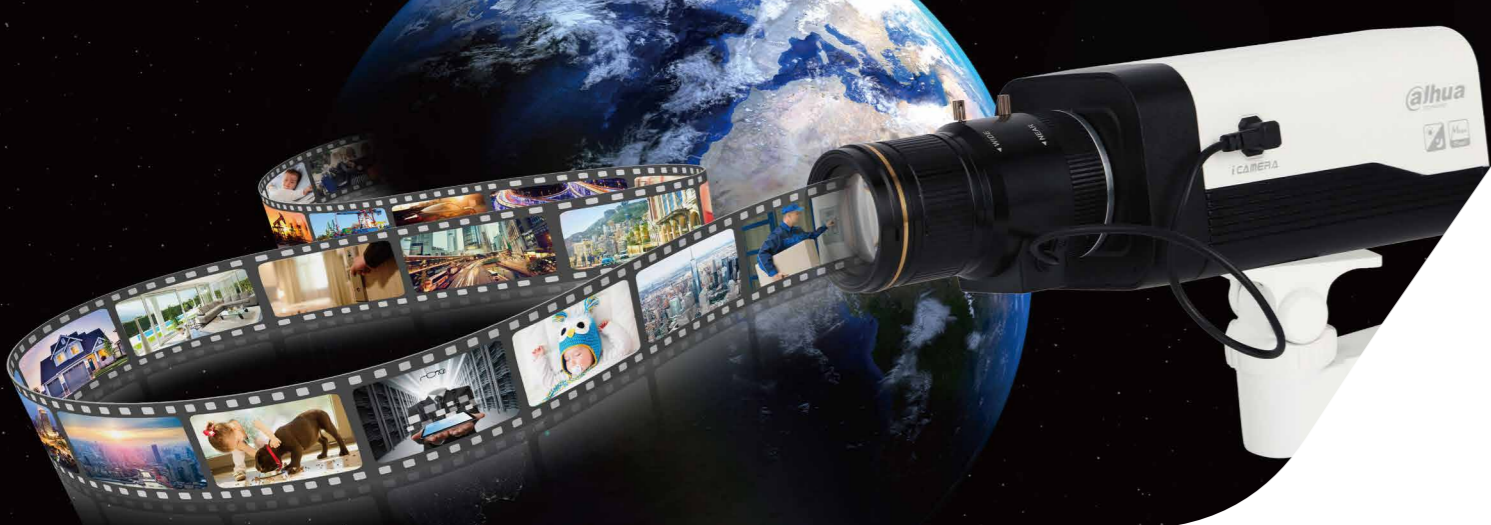
Micro Cloud Storage

The Bridge to Next-generation Surveillance

Overview

Dahua Micro Cloud Storage (MCS) is a brand-new video surveillance storage device for mid-large scale applications that adopts leading technologies, such as object storage and distributed clusters, allowing customers to deploy private and reliable video cloud infrastructures to solve surveillance data challenges.





Surveillance Trends

With decreasing camera prices and an increase in resolution, retention period, and video intelligence utilization:

1. Volume of surveillance is moving from terabytes to petabytes scale.
2. Velocity of data is rising from megabytes to gigabytes throughput.
3. Variety of data is complicated, comprising both small and large files.
4. Value is extracted from video via VCA (video content analysis) and AI (artificial intelligence) techniques.

According to the '4V', video surveillance is a 'big data' problem that calls upon cloud technology for a solution, just as other big data industries do. Importantly, storage is the cornerstone of next generation surveillance while MCS products provide a bridge for you to attain the latest in storage technology.

Customer Challenges



Video Loss



Rough Footage Investigation



Lack of Resilience



Rip and Replace

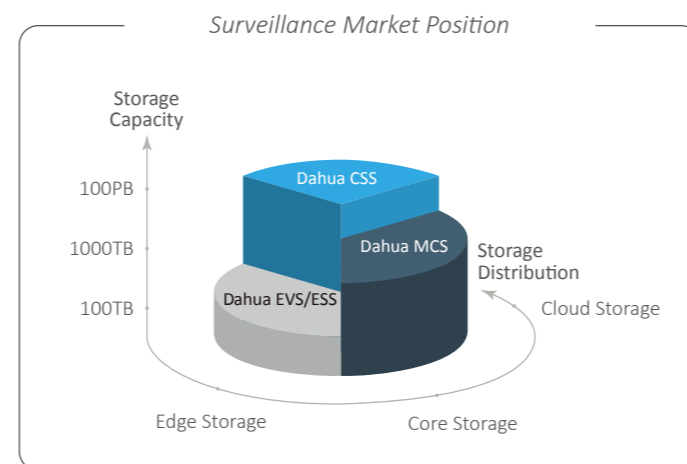


Unable to Evolve to Next Generation



High Construction and Maintenance Cost

Surveillance Market



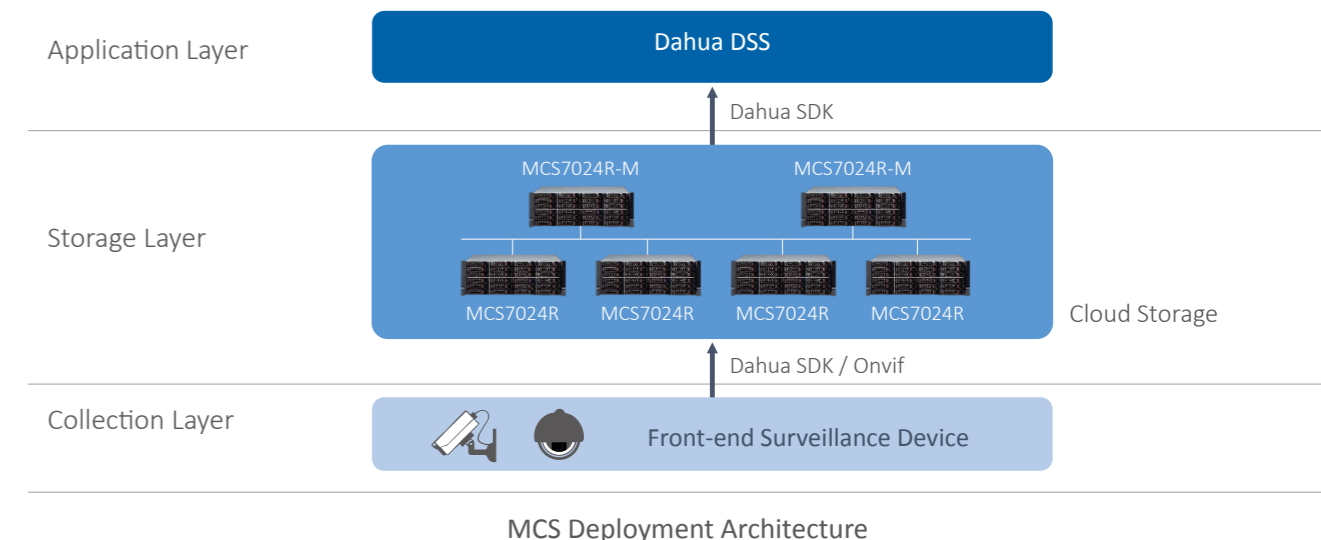
The Dahua MCS is suitable for core surveillance storage applications, and is designed for data intensive and video awareness scenarios. The MCS is comprised of high-density hardware, object storage software, and video access & streaming software.

6 Reasons to Add MCS to Your Surveillance System

- 1 Video protection provides stable surveillance service**
 Our cluster technologies supply video service and prevent video loss even in the event of device crashes. Video streaming directly to the recorder cuts superfluous data pathways via media stream server nodes, reducing system complexity and the risk of video loss.
- 2 '6-9' reliability guards your critical data assets**
 Our EC (ErasureCoding) algorithm provides up to 4 disks or 2 nodes for simultaneous failure tolerance. Data rebuilding times are significantly shorter due to outstanding 2TB/h data recovery speeds. System reliability is increased to an unprecedented 99.9999%, comparable to high-end enterprise storage.
- 3 Unmatched performance accelerates video investigation**
 Supports up to 2048 channels and 4096 Mbps bandwidth in one storage cluster. Dynamic load balancing ensures system is always running in active mode, supplying 4GB/s data throughput by 6 nodes.
- 4 Scalable architecture guarantees system resilience**
 Performance grows linearly with capacity. Automatically extend system in minutes by simply adding HDDs and nodes. Footage retention duration is completely customizable.
- 5 Low total cost of ownership**
 The Dahua MCS is cost-effective, featuring enterprise-level reliability at a surveillance-level price. Auto failure detection, auto data recovery, auto service transfer, and auto scaling configuration decreases the amount of professional maintenance work required, freeing up human resources.
- 6 Leading object storage**
 While most IT and big internet companies have turned to cloud technologies, IP-based surveillance fuses cloud computing, artificial intelligence, and video imaging technologies. In the near future, we will see the establishment of a next-gen surveillance industry which integrates into industry appliances, requiring sound infrastructure. Nevertheless, the storage of data is the prerequisite for the success of this future.



MCS Deployment



Application Scenarios

- High volume surveillance data



Safe City



Transportation

- Footage critical for evidence



Financial



Gaming

- Scale and retention flexibility



Commercial & Building



Security Operations

*Intelligent Scalable Storage Solution
Grow Your Business with the Dahua MCS*

Technical Specifications

System		MCS cluster
System Architecture	Cluster Architecture	Distributed object storage architecture, cluster deployment
	Distributed Storage	Erasur coding technology
	Data Tolerance Mode	Dynamic EC N+M: 4+1, 8+2, 7+2, 1+1, 3+1, 1+2
Performance	System Scale	2-10 nodes
	System Capacity	Supports up to 240 HDDs (10 nodes × 24 HDDs)
	Streaming System Bandwidth	Up to 4096 Mbps
	Streaming System Channel	Up to 2048 channels
	Data Recovery Speed	Up to 2TB/h (6 or more nodes, high speed recovery)
	File Download Speed	Up to 100MB/s
File System Features	File System	Distributed file system
	Load Balancing	Real time dynamic load balancing based on capacity and performance
	Fault Tolerance	File-level and device-level fault tolerance, data is not lost even with multiple disk failure
	File-based Data Recovery	Automatic fault detection and file-based recovery. Valid data recovery instead of entire disk recovery
Scalability	Customization Storage Duration	Can configure video storage duration for channels
	Elastic Expansion	Online HDD expansion for scaling up, online data node expansion for scaling out

Model		DHI-MCS7024R-M	DHI-MCS7024R
System	Node Type	Metadata node + Data node + Streaming node	Data node + Streaming node
	Processor	Intel i7 quad-core processor	
	Memory	32GB DDR4	16GB DDR4
Drive / Storage	HDD Bays	24 HDD slots, 2.5"/3.5", SAS/SATA	
	HDD Installation	Independent HDD bracket, HDD hot-swap and online replacement	
Network	Interface	8 × RJ-45 (10/100/1000Mbps)	
	Interoperability	ONVIF 2.4, CGI conformant	
Electrical	Power Input	AC 110V ~ 240V, 50 ~ 60Hz, Hot-swap. 1+1 redundant, 550W CRPS Current-Sharing Power Supply	
	Fan	12 dual-ball bearing fans, MTBF > 400,400 hours, Hot-swap	
Construction	Form Factor	4U rack server, standard 19-inch rack-mounted	
	Dimensions	446.0 mm wide × 175.0 mm high × 514.5 mm deep (17.6 × 6.9 × 20.3 inches)	
	Net Weight	21.95 kg (48.39 lb) (without HDD)	
Certification	CE	EN55032, EN55024, EN50130-4, EN60950-1	
	FCC	Part 15 Subpart B, ANSI C63.4-2014	
	UL	UL 60950-1 and CAN/CSA C22.2 No.60950-1	
Accessory	DH-S5500-48GT4XF	L3 Switch, 48 port 10/100/1000Base-T (RJ-45) + 4 port 10000M SFP+ (LC)	
	Compatible VMS	DSS Pro	

ENABLING A SAFER SOCIETY AND SMARTER LIVING

Dahua Mexico

Tel: +52 55 67231936
Email: sales.mx@global.dahuatech.com

Dahua Brazil

Tel: +55 11 32511871
Email: comercial.br@global.dahuatech.com

Dahua Thailand

Tel: +66 29382674
Email: info.th@global.dahuatech.com
hr.th@global.dahuatech.com

Dahua S.Korea

Tel: +82 7081618889
Email: DH-KOREA@global.dahuatech.com

Dahua Singapore

Tel: +65 65380952
Email: info.sg@global.dahuatech.com

Dahua Turkey

Email: sales.tr@global.dahuatech.com

Dahua Indonesia

Email: support.id@global.dahuatech.com
sales.id@global.dahuatech.com

Dahua Malaysia

Tel: +60376620731
Email: sales.mas@global.dahuatech.com

Dahua India

Tel: +91 1244569100
Email: sales.india@global.dahuatech.com

Dahua Russia

Tel: +7 (499) 682-60-00
Email: info@global.dahuatech.com

Dahua Kazakhstan

Tel: +7 727 3110838

Dahua UK

Tel: +44(0)1628 673 667
Email: sales.UK@global.dahuatech.com

Dahua Europe

Tel: +31 797999696

Dahua France

Email: sales.france@global.dahuatech.com

Dahua Iberia

Tel: +34 917649862
Email: sales.iberia@global.Dahuatech.com

Dahua Italy

Tel: +39 3703446609
Email: sales.italy@global.dahuatech.com

Dahua Germany

Email: sales.de@global.Dahuatech.com

Dahua CEE & Nordic

Tel: +48 223957400
Email: biuro.pl@global.dahuatech.com

Dahua S. Africa

Email: Dahua.sa@global.dahuatech.com

Dahua Australia

Tel: +61 299285200
Email: sales.oc@global.dahuatech.com

Dahua Middle East

Tel: +971 48815300
Email: sales.me@global.dahuatech.com

* Design and specifications are subject to change without notice.

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www.dahuasecurity.com

DAHUA TECHNOLOGY

No.1199 Bin'an Road, Binjiang District, Hangzhou, China. 310053
Tel: +86-571-87688883 Fax: +86-571-87688815
Email: overseas@dahuatech.com
www.dahuasecurity.com



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