

Storage System DS-AT1000S/192



Introduction

DS-AT1000S is a super large capacity storage product introduced by Hikvision. With high-density controller architecture, the product adopts SSD-based hierarchy storage technology to provide large space management and improve video search performance by ten times. It also supports concurrent write of 256-ch 2 M video stream, and 192 TB with 4U chassis, which reduces cost per terabyte by over 1/3.

Features and Functions

- **High-performance and high-reliability hardware platform:** modularized and cableless design, SBB2.0 standard architecture, Xeon 64-bit multi-core CPU, 4 to 32 GB cache, 1000M network interfaces x 4, key component redundancy
- **Super large capacity and high-density design:** 48 TB/U, up to 192 TB storage space for single device, installation in 800 mm-deep cabinet
- **Disk inspection and RAID optimization technologies**
 - Disk inspection and repair:** disk inspection and auto repair technology to improve disk usage
 - RAID optimization:** various RAID modes (0, 1, 3, 5, 6, 10, 50), global or partial hot spare to protect data security;
 - VRAID (Video RAID) data protection:** recording service will not be interrupted where there are multiple RAID bad disks.
 - Volume cloning:** when RIAD fails, data can be restored through volume cloning technology only if disk is readable physically
- **Security-dedicated direct write technology (Hybrid SAN):**
 - High-performance stream data management structure:** stream media-based bottom layer management structure, which protects file from being unreadable or lost in case of file system damage; no file fragment will be generated by overwrite
 - Direct storage of mixed stream:** direct storage of mixed video stream and smart stream;
 - Transmission protocols:** compatibility with RTSP, ONVIF, PSIA, protocols



- **Enclosed Helium disk technology:** introduce helium disk technology to security industry for the first time; fully isolate disks from dust, moisture, and impurity in air to increase reliability and stability
- **Rich video applications:**
 - Various recording modes, including alarm recording, timing recording, and manual recording;
 - Lock key video data to protect from being overwritten;
 - Auto Network Replenishment (ANR) and video loss detection/ alarm to ensure data integrity during network exception; Hybrid SAN self-monitoring and recovery to avoid data loss or service interruption caused by configuration information exception
- **Environmentally-friendly and energy-saving design:**
 - Smart CPU frequency adjustment:** adjust CPU frequency based on CPU usage to reduce system power consumption;
 - Smart fan speed adjustment:** adjust fan speed finely to improve heat dissipation efficiency and reduce noise;
 - Smart disk dormancy:** disks that have no r/w tasks will be in dormant state to reduce energy waste and prolong disk lifespan;
 - Physical space and power consumption conservation:** ultrahigh-density design saves server room space and further reduces power consumption
- **User-friendly maintenance interface:**
 - Quick system configuration function;
 - User-friendly GUI for user to get device status information (key component, storage resource, environment control information, etc.) timely;
 - Rich alarm modes (LED indicator, message, and email) to improve device maintenance efficiency;
 - SADP protocol to auto search online storage in LAN;
 - Connection with mainstream network management systems via SNMP;
 - Centralized management of multiple devices

Specifications

Model		DS-AT1000S
Performance	Direct Streaming Mode: video (2 Mbps) + picture	256-ch (recording + playback)
Controller	Processor	One controller (64-bit multi-core processor)
	Cache	4 to 32 GB
Storage	Disk capacity	192 TB/device, 48 TB/U
	Hot-swappable disk	Supported
	RAID level	VRAID 0, 1, 3, 5, 6, 10, 50. Hot-Spare
Storage Management	Disk management	Disk inspection, alarm and repair
	Logical volume management	video volume management
Recording Management	Recording mode	Timing recording, manual recording, dual-stream recording, alarm recording
	Video protection	Lock key video, N+1 service protection, ANR, video loss detection and alarm
	Searching mode	Search by time and event
	Downloading mode	Quick download, batch download, download by segment, download by merging
Device Maintenance	Management mode	Web-based GUI, serial port CLI, centralized management of multiple devices
	Alarm mode	Sound, light, email, message, web page
	Log downloading	Download no web page
Network Management	Network protocol	RTSP, ONVIF, PSIA
External Interface (Single Controller)	Data interface	3, 1000M Ethernet interface
	Management interface	1, 1000M Ethernet interface
	COM interface	1
	USB interface	2
	Alarm interface	1
Others	HDMI interface	2
	Power supply (rated)	Redundant
	Power consumption (including disk)	Working: ≤ 275 W; Rated: ≤ 800 W
	Temperature	Working: 5 °C to 40 °C (41 °F to 104 °F) Storage: -40 °C to +50 °C (-40 °F to +122 °F)
	Humidity	Working: 20% to 80% RH (no ice, no condensation) Storage: 5% to 90% RH (no ice, no condensation)
	Dimensions (W × H × D)	447 × 172 × 550mm (17.6 x 6.8 x 21.7in)
	Weight (excluding disk)	≤ 33.5 kg

Applications

