

VS-2024S Video Storage Datasheet

UNIFIED NETWORK STORAGE DEVELOPEDE SPECIALLY FOR VIDEO SURVEILLANCE



Overview

VS-2024S video storage, with high performance, high reliability, low power consumption and high usability, is an economy type unified network storage developed especially for video surveillance. Integrating a range of features such as video data management, iSCSI storage, RAID processing, permanent data protection and cutting-edge disk management technology, this device offers concurrent block access performance (iSCSI), and thus to be a comprehensive solution to storage in video surveillance.

Benefits

- 24 SATA HDDs, up to 20TB for Each HDD
- Support JBOD and RAID 0, 1, 5, 6
- 64-bit High-performance multi-core processor
- Max 512-ch IP camera inputs.
- Max 640 Mbps Incoming /Recording / Forwarding Bandwidth
- Support iSCSI
- ONVIF® Profile S and G conformant

Key Features

Intelligent RAID Engine (ISET)

The RAID can be used immediately after being created. The system automatically initializes at the background. The performance of storage devices usually deteriorates in the case of RAID degradation. The Intelligent RAID Engine technology can be a shield against the impact of abnormal RAID status on services to ensure the normal operation of front-end monitoring services. The IOPS multiplies when concurrent reading and writing occurs on a disk. The Intelligent RAID Engine technology can be a shield against the impact of video recording and playback to ensure the normal operation of front-end services. Optimized read/write cache management algorithm, greatly improving access performance and extending the lifespan of HDDs. The system adjusts the reconstruction speed automatically based on the system conditions to reduce the impact of RAID reconstruction on services and to improve the effective utilization of system resources.

Super Error Correction (SEC)

The unique hard disk fault-tolerant processing algorithm ensures service continuity even when multiple disk errors exist in the array. Fault sectors can also be automatically repaired. Data can be copied to a hot spare disk within a short period. This substantially reduces the read I/O of disk, speeds up the reconstruction, and avoids data loss. Array composition is not affected when data in a certain sector cannot be read. In addition, damaged data can be repaired by using the backup sector to improve array reliability.

Data Protection

Online embedded UPS protection and data safe box are provided to ensure secure writing of cache data into data safe box at unexpected power-off without data loss. Pre-detection of failure is implemented to transfer data from risky disk to the hot spare disk. Once a disk error is detected, the disk repair process would automatically start. Data in the failed disk is recalculated from other disk in the array to remap the bad blocks of disk. Link aggregation and dynamic failover ensure the read/write bandwidth without affecting the availability of data channels.

High-Quality Hardware Design

The innovative enclosure with 583mm depth and 4U height that holds up to 24 disks, is space-saving and applicable to the standard rack-mounted scenarios. The application of Intel 64-bit server platform architecture, 64-bit multi-core processor, ECC DDR3 memory, and 64-bit storage OS ensure excellent service continuity by providing stable and reliable data access. The system availability reaches up to 99.999%. The system would be forced into the security mode in case of a failure. High-speed cache data is stored in the data safe box. Storage media in the data safe box can roam to the new system together with the array disk. The system can be recovered securely and conveniently. The hot-swappable power supply is designed in redundancy and load balancing mode. Automatic power switching in case of failure and online replacement of failed power supply are supported.

High-Quality Hardware Design

Particularly selected chips with low power consumption for service model of video surveillance. Particularly selected chips with low power consumption for service model of video surveillance. Unique simplified design of board. Reduced component type and quantity, under the affirmatory premise of the function, performance and reliability. Several temperature sensors are configured and built inside to intelligently control the fan speed. Reasonably sort and buffer the read/write data by intelligent algorithm reduce the disk read/write times, and reduce the hard disk power consumption.

Product Parameters

Features	VS-2024S
Controller	1
Performance	320-channel(640Mbps) recording, 160-channel(320Mbps) forwarding, 32-channel(64Mbps) playback
Storage controller	Intel 64-bit multi-core processor
Memory	4 GB
Front-end Service Interface	3 10/100/1000 Mbps Ethernet interface 4 port 10/100/1000 Mbps Ethernet interface module (optional) 2-port 10 GE SFP+ interface module (optional) 4-port 10 GE SFP+ interface module (optional)
Host Connection	Up to 1024
HDD	24 SATA interfaces
Disk Capacity	8TB
RAID	JBOD and RAID 0,1, 5, 6 Dedicated hot-spare disk and global hot-spare disk
Maximum Number of Logic Resources	1024
Protocol Supported	iSCSI
Alarm Feature	Indicator alarm, beep alarm, mail alarm, SNMP Trap alarm, and short message alarm
Operating System	Windows and Linux
Power Supply	1+1 Redundant
Battery	1
Dimension (H×W×D)	175.0mm×481.6mm×583.0mm
Power Consumption	< 280 W (fully configured)
Power Supply	100 V – 127 V/ 200 V – 240 V AC, 60 Hz/50 Hz
Weight	< 32 kg
Operating temperature	5 °C~40°C (41 °F ~ 104 °F)

Ordering Information

ID	Description
#173970	VS-6048D 48-bay Dual Controller Network Storage Host
#174334	VS-2024S 24-bay Single Controller Network Storage Host