Overview

DVS (Distributed Video Storage), is launched to meet the large-scale centralized or distributed storage requirements of AIoT. It provides storage virtualization management capabilities, consolidates all storage node spaces into a single storage virtual pool, and provides massive storage space management. The CX1848-V3 is the storage node of the DVS. It focuses on storage services such as video images. It has the characteristics of high performance, high reliability, high density, high scalability, and high usability, providing users with a comprehensive AIoT application storage solution.

Features

· Supports direct storage of videos and images without the need for streaming servers, saving total investment
· Supports intelligent structured data storage for videos
· Supports direct storage of raw data blocks, no file system fragmentation, and no degradation in storage performance for massive small files
· Supports data discretization and concurrent reading and writing of multiple storage nodes
· Optimized read/write cache management algorithm, greatly improving access performance and extending the lifespan of HDDs
· The storage architecture reduces the Single point of failure of the servers
· Failover，when a node fails, other nodes will automatically take over and balance services.
· 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.
· Once a disk error is detected, the disk repair process would automatically start. Data in the failed disk is recalculated from

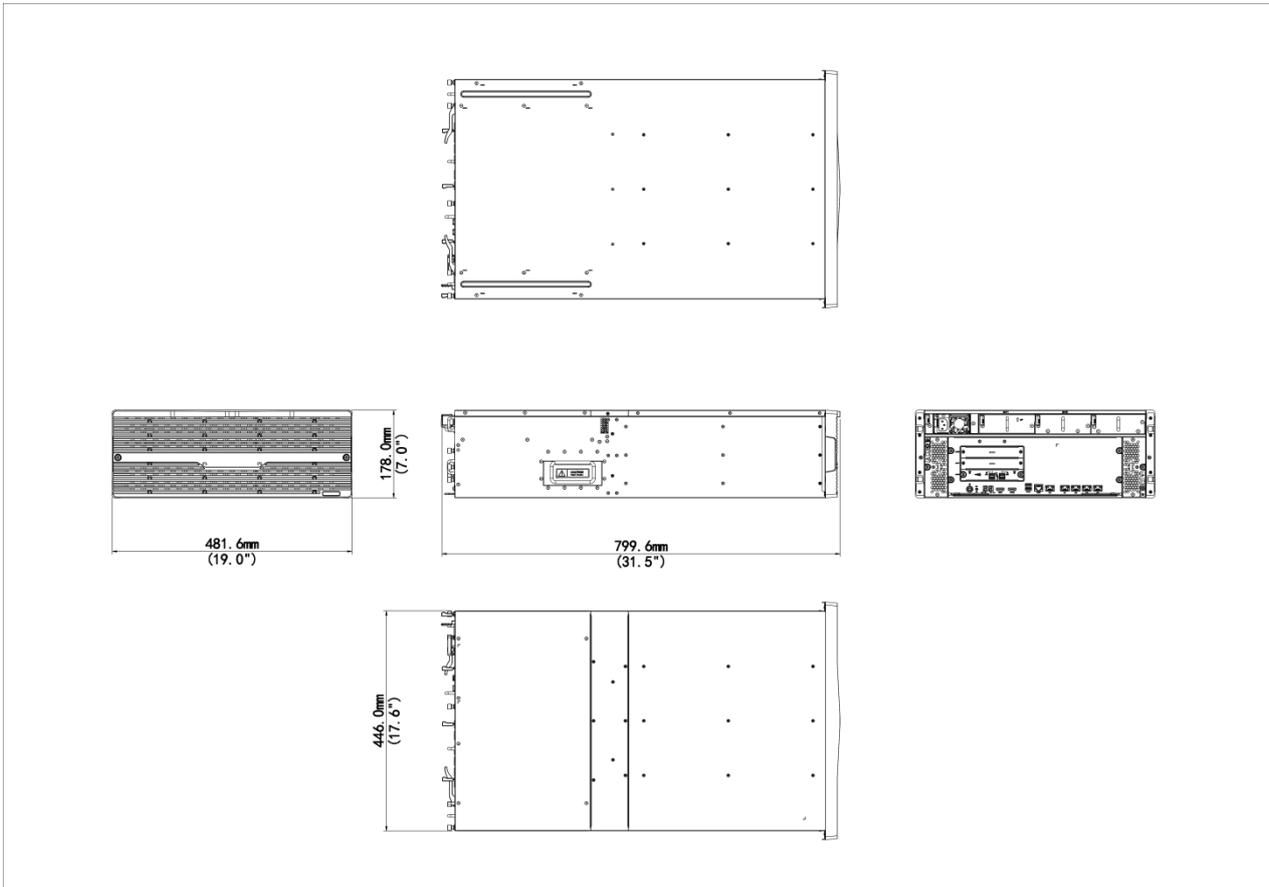other disk in the array to remap the   bad blocks of disk.

· 　　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.

· 　　The application of Intel 64-bit server platform architecture, 64-bit multi-core processor, ECC DDR5 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.

· 　　When the active BIOS fails to start, the system automatically detects the failure and switches to the standby BIOS.

· 　　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.

· 　　The mechanism of hardware overload protection is provided. When the temperature reaches the protection threshold, the system automatically turns off to protect the disk data.

· 　　When CPU and memory malfunction or reach the protection threshold, the system automatically sends alarm messages through mails, short messages, and SNMP Trap.

· 　　Disk powered on sequentially during system startup, protection from impulse current.

· 　　Fans with multistage speed are configured in the hot-swappable frame in redundancy mode. System power consumption can be balanced intelligently with heat dissipation calculation to ensure low power consumption and stable operation of the system.

· 　　Functions as indicator alarm, mail alarm, SNMP Trap alarm and SMS alarm are supported.

· 　　Automatic startup after unexpected power-off, and timed startup and shutdown are also available.

· 　　The environmental monitoring function allows the monitoring of the utilization of network interface and CPU, the querying of the access of LUN and RAID, as well as the management of device voltage and temperature. In this way, administrators can comprehensively inspect system operation condition and reasonably allocate resources to maximize the device performance.

· 　　Selected power supplies with high PF and conversion efficiency

· 　　Several temperature sensors are configured and built inside to intelligently control the fan speed.

· 　　Hibernation for unoccupied disks

· 　　Reasonably sort and buffer the read/write data by intelligent algorithm reduce the disk read/write times，and reduce the hard disk power consumption.

Specifications

Model	CX1848-V3
Module	
Controller number	1
CPU	Intel 64-bit multi-core processor
Memory	16 GB, up to 128 GB
Power module	1 default , 1 optional
Battery module	1 default,1 optional
Power Supply	100 V – 127 V/ 200 V – 240 V AC, 60 Hz/50 Hz
Fan module	2
Dimension	Controller enclosure: 178 mm X 482 mm X 800 mm (H × W × D) Note：for standard cabinet with 1000 mm depth or above 1.6 mm × 589.0 mm

Power Consumption	Controller enclosure :< 800 W (fully configured)
Weight	Controller enclosure: Fully configured: < 69 kg
Operating temperature	5 °C~40 °C / 41 °F ~ 104 °F, (10 °C~ 35 °C / 50 °F ~ 95 °F Recommended)
Authentication certificate	CE, FCC, CB, RoHS, WEEE
Interface	
HDD　slot	48 * 3.5-inch SATA HDD Disk Slot
Front-end Service Interface	5-port 2.5 Gb Ethernet interface 4-port 2.5 Gb Ethernet interface module（optional） 2-port 10 GE SFP＋ interface module（optional） 4-port 10 GE SFP＋ interface module（optional）
HDMI	2
USB	2
PCIe slot	3 PCI-E 4.0
Serial port	RS232 RJ interface *1
Back-end Expansion Interface	Expandable 2-port 4 * 12　Gbps Mini SAS HD（optional）
Function	
Protocol	iSCSI
RAID	JBOD and RAID 0,1,10, 5, 50,6 Dedicated hot-spare disk and global hot-spare disk
Performance	
Video Mode	Default 512 channels or 1 Gbps

Dimensions

Accessories

LIS-NI-HDD Authorization-IN

Hdd Authorization Host License

ND-HD-S-48

48 Disk Slots Single Control Storage Hdd Kit

FB-IN4GA-V3-NB

4 Port 2.5 Gigabit Ethernet Interface Module

FB-IN2XG-V3-NB
2 Port 10Gb Ethernet Interface Module

FB-IN4XG-V3-NB
4 Port 10Gb Ethernet Interface Module

FB-IN2S12G-V3-NB
2 Ports HD MiniSAS Interface Module

NI-MEM8G-DDR5-UDIMM-NONECC-NB

Memory Upgrade Package UDIMM DDR5 Non 8GB

NI-MEM16G-DDR5-UDIMM-NONECC-NB

Memory Upgrade Package UDIMM DDR5 Non 16GB

NI-MEM32G-DDR5-UDIMM-NONECC-NB

Memory Upgrade Package UDIMM DDR5 Non 32GB

NI-HD4000V-A-S-ST-01

UNV 48 Disk Slots Single Control Storage,Surveillance SATA Hard Disk(Seagate 4TB*2)

NI-HD6000V-A-S-ST-01

UNV 48 Disk Slots Single Control Storage,Surveillance SATA Hard Disk(Seagate 6TB*2)

NI-HD8000V-A-S-ST-01

UNV 48 Disk Slots Single Control Storage,Surveillance SATA Hard Disk(Seagate 8TB*2)

ND-HD010TV-A-S-ST

UNV 48 Disk Slots Single Control Storage Integrative Surveillance SATA Hard Disk(Seagate 10TB*2)

ND-HD012TV-A-S-ST

UNV 48 Disk Slots Single Control Storage Integrative Surveillance SATA Hard Disk(Seagate 12TB*2)

ND-HD014TV-A-S-ST

UNV 48 Disk Slots Single Control Storage Integrative Surveillance SATA Hard Disk(Seagate 14TB*2)

ND-HD016TV-A-S-ST

UNV 48 Disk Slots Single Control Storage Integrative Surveillance SATA Hard Disk(Seagate 16TB*2)

ND-HD018TV-A-S-ST

UNV 48 Disk Slots Single Control Storage Integrative Surveillance SATA Hard Disk(Seagate 18TB*2)

ND-HD6000V-A-S-WD

UNV 48 Disk Slots Single Control Storage,Integrative Surveillance SATA Hard Disk(WD 6TB*2)

ND-HD8000V-A-S-WD

UNV 48 Disk Slots Single Control Storage,Integrative Surveillance SATA Hard Disk(WD 8TB*2)

ND-HD010TV-A-S-WD

UNV 48 Disk Slots Single Control Storage Integrative Surveillance SATA Hard Disk(WD 10TB*2)

ND-HD012TV-A-S-WD

UNV 48 Disk Slots Single Control Storage Integrative Surveillance SATA Hard Disk(WD 12TB*2)

ND-HD014TV-A-S-WD

UNV 48 Disk Slots Single Control Storage Integrative Surveillance SATA Hard Disk(WD 14TB*2)

ND-HD018TV-A-S-WD

UNV 48 Disk Slots Single Control Storage Integrative Surveillance SATA Hard Disk(WD 18TB*2)

BAT-LA5800

Lead-acid Battery Module

NI-HD4000E-A-S-ST-01

UNV 48 Disk Slots Single Control Storage,Enterprise SATA Hard Disk(Seagate 4TB*2)

NI-HD6000E-A-S-ST-01

UNV 48 Disk Slots Single Control Storage,Enterprise SATA Hard Disk(Seagate 6TB*2)

NI-HD8000E-A-S-ST-01

UNV 48 Disk Slots Single Control Storage,Enterprise SATA Hard Disk(Seagate 8TB*2)

ND-HD010TE-A-S-ST

UNV 48 Disk Slots Single Control Storage Integrative Enterprise SATA Hard Disk(Seagate 10TB*2)

ND-HD012TE-A-S-ST

UNV 48 Disk Slots Single Control Storage Integrative Enterprise SATA Hard Disk(Seagate 12TB*2)

ND-HD014TE-A-S-ST

UNV 48 Disk Slots Single Control Storage Integrative Enterprise SATA Hard Disk(Seagate 14TB*2)

ND-HD016TE-A-S-ST

UNV 48 Disk Slots Single Control Storage Integrative Enterprise SATA Hard Disk(Seagate 16TB*2)

ND-HD018TE-A-S-ST

UNV 48 Disk Slots Single Control Storage Integrative Enterprise SATA Hard Disk(Seagate 18TB*2)

ND-HD020TE-A-S-ST

UNV 48 Disk Slots Single Control Storage Integrative Enterprise SATA Hard Disk(Seagate 20TB*2)

ND-HD6000E-A-S-WD

UNV 48 Disk Slots Single Control Storage,Integrative Enterprise SATA Hard Disk(Western Digital 6TB*2)

ND-HD8000E-A-S-WD

UNV 48 Disk Slots Single Control Storage,Integrative Enterprise SATA Hard Disk(WD 8TB*2)

ND-HD010TE-A-S-WD

UNV 48 Disk Slots Single Control Storage Integrative Enterprise SATA Hard Disk(WD 10TB*2)

ND-HD012TE-A-S-WD

UNV 48 Disk Slots Single Control Storage Integrative Enterprise SATA Hard Disk(WD 12TB*2)

ND-HD014TE-A-S-WD

UNV 48 Disk Slots Single Control Storage Integrative Enterprise SATA Hard Disk(WD 14TB*2)

ND-HD016TE-A-S-WD

UNV 48 Disk Slots Single Control Storage Integrative Enterprise SATA Hard Disk(WD 16TB*2)

ND-HD018TE-A-S-WD

UNV 48 Disk Slots Single Control Storage Integrative Enterprise SATA Hard Disk(WD 18TB*2)

ND-HD020TE-A-S-WD

UNV 48 Disk Slots Single Control Storage Integrative Enterprise SATA Hard Disk(WD 20TB*2)

DE1848-V2

48 Network Storage Disk Enclosure Unit

DE1848-V2@P

48 HDD Network Storage Expand
Enclosure

PWR-800A-AC-NB

800W AC Power Module

Ordering Info

Product Model	Description
CX1848-V3	48 *3.5-inch HDD Disk Slot

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