

NSS-41000

NAS Storage for Scale-out Implementation

As Data storage capacity continues to expand at break-neck speed, increasingly customers are looking for a storage solution to meet cost competitive scale-out solutions. NSS-41000 is ideally designed to address the virtual storage architecture that is scalable and meet some of today's most demanding requirements. The system can operate in free air environment, has the capacity of up to 1PB in 4U, yet designed to minimize power consumption.

NSS-41000 can be deployed in a private or public cloud and can be implemented with Erasure coding technologies or in RAIDed environment with dual socket E5-2600v4 processors.

The system has been designed to address tool-less service of all FRUs (field replaceable units). The system offers remote management capabilities of all features and can be monitored using IPMI2.0 compliant interface. Target device communication and management is enabled via standard serial ATA (SATA 3.0) protocol with enclosure services linked via SES firmware.

The NSS-41000 fits into an industry standard 19" wide / 47" deep rack.

FEATURES

- ▶ Full-featured robust SATA 3.0 storage enclosure
- ▶ Dual socket E5-2600v4 server with integrated storage architecture
- ▶ Multiple Drive partitioning/split-bus zoning modes
- ▶ Dual redundant high efficiency advanced power supplies & cooling modules
- ▶ Standard chassis customization & branding available



VES Portfolio of Storage and Storage Server Solutions

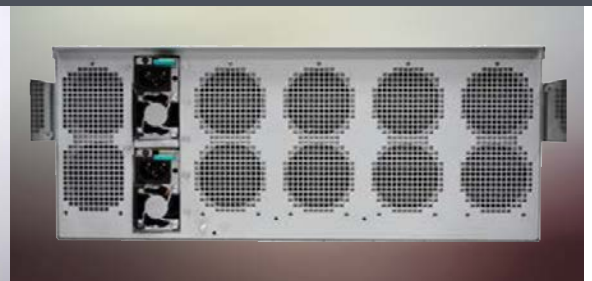
VES offers a broad portfolio of product offerings, including:

- ▶ Leading edge high performance & high availability solutions
- ▶ Industry leading cold storage & object storage solutions
- ▶ Purpose built compute & storage platforms

Working with VES provides you with an accelerated time-to-market for your server and storage product needs, and allows you to leverage our portfolio of proven product designs.

Customers are backed by an industry leading design team and a world-class Electronics Manufacturing Services organization.

Very High Density SATA 3.0 Connected Enclosure supports 100 Hard Drives in 4U. Provides exceptional NAS performance and capacity for today's scale out implementation.



NSS-41000

Host Interfaces

- ▶ One Haswell/Broadwell Server
 - ▶ Dual socket
 - ▶ Up to eight DDR4 DIMMS per socket
 - ▶ Efficient power supplies
 - ▶ 40GB networking

Redundant Hot-Swappable Components

- ▶ Two 1+1 redundant power supplies
 - ▶ 1600 Watt
 - ▶ 2A standby supply for lowest power consumption when idle
- ▶ Two independent AC power inlets
- ▶ Up to 100 Drives
- ▶ Five fan modules

Firmware

- ▶ SCSI Enclosure Services (SES) 3.0 based firmware or,
- ▶ IPMI 2.0 Baseboard Management Controller
- ▶ Console events logged onto microSD card

Drive Partitioning

- ▶ Additional zoning schemes can be developed upon request

4U Rackmount Enclosure

- ▶ Dimensions: 6.9 in. H x 17.2 in. W x 42.1 in. D (17.5 cm H x 42.9 cm W x 107.0 cm D)
- ▶ Weight with drives: 264 lbs (120 kg) max
- ▶ Standard Rackmount Rail Kit with integrated cable management

Failure Notifications

- ▶ SCSI Enclosure Services (SES-3.0) over in-band interface

Electromagnetic Emissions & Immunity Standards

- ▶ CE Mark
- ▶ EN55022/EN61000 Class A
- ▶ FCC Class A
- ▶ Canadian IEC5-003

Disk Drives

- ▶ 100 independent point-to-point connections to each SATA disk drive
- ▶ Form factor: 3.5" SATA drives
- ▶ Rotational speeds up to 15K RPM
 - Interface: 6Gb/3Gb SATA
- ▶ Tool-less HDD Carriers
- ▶ Optional 2nd M.2 2280 size SATA or PCIe drive

AC Power

- ▶ Input voltage: 180-264V AC
- ▶ Input frequency: 47-63 Hz
- ▶ Maximum system continuous DC output power rating: 1600 Watts

Performance (EDFB)

- ▶ Up to 11GB/s sequential read
- ▶ Up to 10GB/s sequential write

Capacity

- ▶ 100 drive capacity per 4U enclosure
- ▶ 1 PB total storage capacity

Safety Standards

- ▶ UL 60950
- ▶ CSA 22.2-950

Quality Standards

- ▶ Manufactured under an ISO 9002 registered quality system

Environment Protection

- ▶ RoHS and WEEE compliant

Operating Environment

- ▶ Temperature: up to 45°C
- ▶ Relative humidity: 20 to 80 percent (non-condensing)
- ▶ Altitude: -200 to 10,000 ft
- ▶ Shock: 5G at 11ms, 1/2 sine wave pulse
- ▶ Vibration: 0.10G at 5Hz to 500Hz
- ▶ Acoustics: 7.6 Bels at normal

Non-Operating Environment

- ▶ Temperature: -40° to 60°C
- ▶ Relative humidity: 10% to 90% (noncondensing)
- ▶ Altitude: -200 to 40,000 ft
- ▶ Shock: 10G at 11ms, 1/2 sine wave pulse
- ▶ Vibration: 0.5G at 5Hz to 500Hz

Monitoring & Reporting

- ▶ Monitoring for temperature, advanced power & cooling modules including fan speed control, & disk drives as well as error rates & quality of service
- ▶ IPMI reporting of all serial number, part number & revisions of each FRU & chassis

