

Performance

- 384 Gbps total non-blocking PCIe switching throughput (480 GT/sec), across:
 - 16 PCIe Gen2 x4 server-connection lanes
 - 4 PCIe Gen2 x8 I/O lanes
- 300 nSec (typ) PCIe switching latency
- Total 96 PCIe Gen2 lanes across 20 available channels
- Connectivity for up to 16 servers per VIO

Physical, Electrical, Power, Cooling and Thermal

PHYSICAL

- 2U rack-mount height (3.5 inch, 88 mm) with front-to-rear airflow
- Standard 19 inch (483 mm) rack width
- 26 inch (660 mm) depth
- System weight: 50 lbs (23 kg) maximum, fully configured

POWER

- Single or dual AC/DC power supplies delivering 500 W each
- Second power supply for 1+1 redundancy
- Power supplies are load-sharing, hot-swappable
- Supported range: 90 to 264 V AC (autosensing)
- Rated current:
 - 8.0 Amps @115 V AC
 - 4.0 Amps @230 V AC
- In-rush current:
 - 60 Amps max, peak @ 115 V AC (per PS)
 - 80 Amps max, peak @230 V AC (per PS)
- Frequency: 47 to 63 Hz

COOLING

- Six fan modules arranged in a 3/2 array (5+1 redundancy)
- Fans are hot-swappable
- Heat dissipation (max): 735 W or 2508 BTU maximum

Environmental

TEMPERATURE

- Operating: 0° C to 40° C (32° F to 104° F)
- Non-operating: -40° C to 60° C (-40° F to 140° F)

HUMIDITY

- Operating: 8% to 80% non-condensing at 40° C (104° F)
- Non-operating and storage(non-condensing): 5% to 80%

ALTITUDE

- 0 to 3000 ft (0-914 m) @ full operating temp range
- 0 to 7000 ft (0-2134 m) @ max operating temp of 32° C (89° F)

SHOCK

- Operating: 20 G, 11 ms, ½-sine; 1 G p-p, 5–500 Hz, 1 octave min
- Non-operating: 33 G, 11 ms, ½-sine; 2.4 G p-p, 5–500 Hz, 1 octave min

VIBRATION

- Operating: 5 G p-p, 0- 3 kHz, 1 octave min
- Non-operating: 10 G p-p, 0- 5 kHz, 1 octave min

10 Gbit Ethernet Adapter Option

- Dual 10 Gb Ethernet ports per adapter
- SFP+ connectivity with support for 10 GBase-SR, 10 GBase-LR, and SFP+ copper direct attach cables
- Tx/Rx IP, SCTP, TCP and UDP checksum offloading capabilities
- Tx TCP segmentation offload
- IPsec offload
- MacSec (IEEE spec: 802.1ae)

8 Gbps Fibre Channel Adapter Option (VIO-4001)

- Dual 8/4/2 Gbps auto-negotiation FC ports
- SFP+ connectivity with LC-style connector
- 200,000 initiator and target IOPS per port
- Cable distances:

Multi-Mode Optic Cable Type and Distance (m)			
Rate	OM1	OM2	OM3
2 Gbps	150	300	500
4 Gbps	70	150	380
8 Gbps	21	50	150

virtualized Direct Attached Storage RAID (VIO-4008)

- Per adapter: Up to four SAS or SATA interface drives
- Supports 6 Gbps SAS or SATA interface
- Supports rotating or Solid State (SSD) drives with SSD Guard™
- Auto-resume after loss of system power during array rebuild or reconstruction (RLM)
- Supports RAID levels 1 and 5, and up to 64 TByte LUN support
- S.M.A.R.T. support
- 512 Mb on-board RAM per adapter
- Includes battery back-up option

System Management and Monitoring

- Web-based Graphical User Interface (GUI): Internet Explorer 8, Firefox 3.6 or higher
- Command-Line Interface (CLI)
- Administrator- and Technician-level system user accounts enabling two levels of system management
- SNMP alerts, read-only access to system configuration for enterprise management console integration
- IPMI-based management of system including remote power-on/off, environment monitoring and chassis alerts

Supported Operating Environments

- Industry-standard x86 servers with available PCIe expansion slot(s). Contact Virtensys for additional support information
- Supported Operating Systems:
 - Windows Server 2008 R2, 64-bit
 - Red Hat Enterprise Linux 5.5, 64-bit
 - VMware ESX 4.0 Update 2
 - VMware ESX 4.1

Server Connection Specifications

- PCIe Gen2 x4 interface
- Standard PCIe x4 external cable, up to 5 meters

Availability Features

- Redundant, hot-swappable power supplies & cooling fan modules
- 10 Gbit Ethernet supports failover and NIC-teaming
- Fibre Channel supports MultiPathing

Certifications / Regulatory Compliances

SAFETY

- EN 60950-1:2001; UL 60950

EMISSIONS

- Radiated and Conducted: EN 55022: 2006 (Amended by A1:2007) Class A; FCC CFR 47 Part 2 and 15: Class A
- Flicker: EN 61000-3-3:1995 (Amended by A1:2001, A2:2005)
- Harmonics: EN 61000-3-2:2006

IMMUNITY

- EN 55024:1998 (Amended by A1:2001 and A2:2003) and the provisions of the directives:
 - Low Voltage Directive 2006/95/EC
 - EMC Directive 2004/108/EC