



Penguin Niveus / Tempest

Linux Workstations for Professional User

Latest Processors, Solid State Storage and High End Visualization Options

Features

- » Deskside workstations designed for office environments
- » Latest dual socket, multi core CPUs from Intel and AMD
- » Space, power and cooling to support high-end visualization hardware
- » Integrated, tested Linux environment with all the right drivers included

Benefits

- » Personal compute resource – Teraflops at your fingertips
- » Instant productivity: Linux operating system ready to run your science
- » Get results fast: Fastest CPUs, interconnects and storage process large data sets with speed

Applications

- » Engineering & scientific applications with computational, memory and visualization needs
- » Software development
- » Parallel number crunching using GPUs as coprocessors
- » Multi-display visualization
- » Deskside front end for larger cluster in the datacenter

For Professional User by Linux Professionals

Penguin workstations bring the powerful Linux environment to professional user's desktop. Penguin Niveus and Tempest models target the scientific and engineering users by offering the latest CPUs, large RAM capacities, high performance storage and high-end visualization options.

Penguin Niveus

Penguin Niveus workstations are Intel Xeon based powerhouses for the most demanding workloads. Current Niveus 4000 and 4200 models feature dual Xeon 5500 "Nehalem" processors with new QuickPath Interconnect and vastly enhanced I/O capabilities. Another remarkable Intel technology is the optional Solid State Drives, which are the fastest local storage option available in a workstation form factor. Niveus 4200 includes PCI Express generation 2 expansion slots for up to 4 video cards or GPU coprocessors like NVIDIA Tesla or ATI FireStream – Personal Supercomputer.

Penguin Tempest

Penguin Tempest systems feature cutting edge AMD Opteron CPUs, with up to 6 cores per CPU socket and 2 sockets per system, or in other words 12 processors under or on your desk. Latest member of the Tempest family, Tempest 3200 supports also up to 128GB RAM and PCI Express generation 2 expansion slots. New expansion capabilities are designed to accommodate the most powerful video cards and GPU coprocessors currently available, 4 at a time if needed. Not only is the Tempest 3200 very capable, it's also whisper quiet.

Designed for Linux

All Penguin systems have been tested for compatibility with major commercial and free Linux distributions. Penguin systems are available with Red Hat Enterprise Linux, SuSE Linux Enterprise Server or CentOS preinstalled. Penguin Computing is also the original developer of the Scyld ClusterWare cluster management suite. ClusterWare provides easy to manage, highly scalable provisioning tools and distributed runtime environment, simplifying deployment of x86/Linux clusters.



	Niveus 4200	Niveus 4000	Tempest 3200	Tempest 3100
Form Factor	Deskside Workstation with optional rack mounting kit			
Processors	Two Intel Xeon 5500 series quad core processors		Two AMD Opteron 2300/2400 quad and six core processors	
Bus Speed	QuickPath Interconnect (QPI), up to 6.4 Giga Transfers / s		Hypertransport 3.0 (HT 3.0), up to 4.8 Giga Transfers / s	
Cache	8MB L3 cache		4MB (Opteron 2300) / 6MB (Opteron 2400)	
Chipset	Intel 5520		AMD 5690	NVIDIA 3600
Memory	DDR3-1333, 12 DIMM slots, up to 96GB		DDR2-800, 16 DIMM slots, up to 128GB	DDR2-800, 8 DIMM slots, up to 64GB
Expansion Slots	4 x PCI-E gen2 x16 2 x PCI-E gen2 x4 1 x PCI-E x4 2 x 32-bit PCI	2 x PCI-E gen2 x16 4 x PCI-E gen2 x8 1 x PCI-E x4	4 x PCI-E gen2 x16 2 x PCI-E gen2 x4 1 x 32-bit PCI	2 x PCI-E x16 1 x PCI-E x8 2 x PCI-E x4 1 x 32-bit PCI
Internal Storage	8 hot swap drive bays for 3.5" drives enterprise class 7200rpm SATA drives, up to 2TB enterprise class 15000rpm SAS drives enterprise class Solid State Drives based on SLC (Single Level Cell) flash technology Optional hardware RAID Adaptec Zero Maintenance RAID available			
Network Interfaces	Dual 10/100/Gigabit Ethernet Ports Optional 10Gigabit Ethernet and InfiniBand Dual/Quad Data Rate interfaces available			
Management	Integrated management processor with support for IPMI 2.0, remote power control, health monitoring and remote console (optional in Tempest 3100)			
Power Supply	2 x 1400W redundant	800W or 1200W redundant option	2 x 1400W redundant	865W
Dimensions	17.8" H x 7" W x 29.4" D	17.2" H x 7" W x 25.5" D	17.8" H x 7" W x 29.4" D	17.8" H x 7" W x 25.5" D
Warranty	Standard 3-year warranty included with every Penguin Computing system			

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