

Trio Departmental Supercomputer

Super Computers for Innovation™



Imagine 3.0 TB of shared memory and 192 cores of power your most demanding computing tasks. The Trio Department Supercomputer based on our Distributed Symmetric Multi-Processing (DSMP) technology turns this dream into a reality – today!


Trio Departmental Supercomputers are ideal for high performance computing applications with large memory needs: bioinformatics & life sciences (molecular modeling, genomic sequencing, and personalized medicine); engineering (coupled models & multi-dimensional simulations); energy (exploration, grid optimization); and complex financial analyses.

The Trio Departmental Supercomputer is a rack mountable system packed with 192 AMD Opteron™ series processor cores and up to 3.0 TB of RAM. Three server nodes become one interconnected supercomputer with high-speed Infiniband and our breakthrough DSMP technology.

A Trio Departmental Supercomputer is a true Symmetric Multi-Processing (SMP) supercomputer with a large shared memory and a single software image. The performance of our Trio is equivalent to expensive SMP supercomputers, but only for a fraction of their cost.

With Trio, engineers, scientists, researchers and analysts can finally afford the powerful large shared-memory SMP supercomputer that their applications demand.

System Specifications

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| Processors: | 192 Cores (Twelve AMD Opteron™ 63XX Processors) |
| Memory: | 96 DIMM sockets with 2 options: <ul style="list-style-type: none"> • 1.5-TB 1600 MHz ECC DDR3 • 3.0-TB 1333 MHz ECC DDR3 |
| Storage: | 18 Hot Swap drive bays for: <ul style="list-style-type: none"> • 2- or 3-TB 7200 RPM SATA-3 Drives • 1-, 2- or 3-TB 7200 RPM SAS-2 Drives |
| Node Interconnect: | 6 Single-port QSFP 40 Gbps InfiniBand PCIe Host Bus Adapters |
| I/O: | 1 DVD-ROM 1 RJ45 Gbps Ethernet 2 USB 2.0 Ports 1 VGA Port PS/2 Keyboard and Mouse Ports 1 Fast UART 16550 Serial Port 1 RJ45 Dedicated LAN supports IPMI Optional 10 Gbps Ethernet |
| Environment: | 6 Redundant 1400-Watt High Efficiency Power Supplies (80 PLUS Gold Certified) Efficient Front-to-Back Cooling |
|  | |
| Power: (per node) | 1200 W: 100-140V, 50-60 Hz, 10.5-14.7 Amp 1400 W: 180-240V, 50-60Hz, 7.2-9.5 Amp |
| Dimensions: | Standard 19 inch Rack Mountable Height — 6U (10.5 inches or 267 mm) Width — 17.2 inches (437 mm) Depth — 27.75 inches (705 mm) |
| Gross Weight: | 207 lbs. (93.9 kg) |
| Software Specifications: | <ul style="list-style-type: none"> • Linux Support (OpenSUSE 11.4, Centos 6.4) • DSMP™ Distributed Symmetric Multi-Processing™ • OpenMP, Pthreads, MPI <p>Distributed Symmetric Multi-Processing™ enables Symmetric Multi-Processing on a Trio Departmental Supercomputer — a single software image with 1.5 TB or 3.0 TB single shared memory across 3 server nodes with 192 AMD Opteron™ cores.</p> |

Features

Benefits

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|------------------------------|--|
| • Affordable Supercomputing | ✓ Faster projects. No more delays waiting for scheduled HPC time. |
| • Large Single Shared Memory | ✓ Ideal for large memory bioinformatics applications |
| • Single Software Image | ✓ Simple and scalable SMP multi-threaded programming. No complicated cluster tailoring. |
| • Power Efficient | ✓ Saves money and runs cooler |
| • Only 6U Rack Space | ✓ Fits easily into your existing racks |

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