Trio High Performance Server
Large Shared-Memory Many-Core Computing

Imagine 192 cores of compute power and 6 TB of shared memory for your most demanding applications. The Trio™ high performance server based on our patented Distributed Symmetric Multi-Processing (DSMP™) technology turns this dream into a reality.

Our Trio high performance server is a rack mountable system consisting of three 2U state-of-the-art server blades packed with 6 AMD EPYC™ 7601 processors and up to 6 TB of DDR4 RAM. Our breakthrough DSMP technology along with 100 Gbps InfiniBand transforms these three server blades into one interconnected high performance server. With DSMP, all 192 cores access a single large shared memory.

Our Trio high performance server is a true Symmetric Multi-Processing (SMP) computer with a large shared memory and a single operating system image based on the Centos 7.4 Linux. The performance of our Trio is equivalent to SMP mainframe computers costing more than $1 million. With the Trio, you can be executing your most demanding computations for an order of magnitude less cost.

Symmetric Computing's Trio™ delivers mainframe performance to business, industry, academia and governments at a unprecedented price point.

System Specifications

Processors:	192 Cores (Six 32-core 2.2/3.2GHz AMD EPYC™ 7601 Processors)
Memory:	96 DIMM sockets with either:
	• 6 TB 2666 MHz DDR4 (64 GB DIMMs)
	• 3 TB 2666 MHz DDR4 (32 GB DIMMs)
Storage:	512 GB on-board M.2 OS drive 18x 2.5" U.2, 54 2.5" SATA/SAS hot-swappable SSD/HDDs
Node Interconnect:	6x ConnectX-5 VPI 100 Gb/s InfiniBand Dual Port 100 Gbps InfiniBand PCIe Gen 3 Host Bus Adapters (No InfiniBand switch is needed)
I/O:	2x 1 GbE LAN ports 1 10/100/1000 Mb/s management LAN 2x USB 3.0 Ports 1 VGA Port
Environment:	Redundant 1200W 80+ Platinum PSU 4x 8 cm Easy-swap counter rotating fans
Power:	6 120-VAC @ 15 Amp (3.6 KW max)
Dimensions:	Standard 19 inch Rack Mountable Height — 6U 261 x 438 x 730 mm (10.3" x 17.2" x 28.7")
Gross Weight:	3x 19.5 Kg (43-lbs) server blades

Features

Features	Benefits
• Powerful Computing	√ *Faster projects. Dedicated power when your project needs it.*
• Large Single Shared Memory	√ *Ideal for large memory applications*
• Single Software Image	√ *Simple and scalable SMP multi-threaded programming.*
• Only 6U Rack Space	√ *Fits easily into your existing racks*

Software Specifications
• Linux OS (Centos 7.4)
• DSMP™ Distributed Symmetric Multi-Processing™
• OpenMP, Pthreads, POSIX, SysV IPC

Distributed Symmetric Multi-Processing™ enables Symmetric Multi-Processing on a Trio™ High Performance Server — A single system image with up to 6 TB single shared memory and 192 AMD EPYC™ cores.