

# Microway® Custom 1U Dual Intel® Xeon™ Solution

## **COST-EFFECTIVE, HIGH-DENSITY COMPUTING POWER**

Microway's 1U dual Xeon chassis houses Plumas (E7501) chipset-based motherboards, offering 6000 Mflops per 3.06 GHz, 533 FSB Intel® Xeon™ processor. Microway's proprietary 1U chassis runs up to 17° cooler than other chassis specifically designed for Xeon motherboards.

## **REMOTE MONITORING AND CLUSTER MANAGEMENT TOOLS**

NodeWatch™ is the affordable network-independent device that gives you peace-of-mind through remote monitoring and control of your Microway cluster. NodeWatch measures, reports and records up to ten fan speeds, five temperatures, and three power supply voltages, in addition to providing physical control over front-panel power and reset inputs. The cluster or individual nodes can be switched on and off, rebooted, and reset remotely. NodeWatch software delivers critical information remotely via a secure, web-based GUI. The combination of NodeWatch and MCMS™ (Microway's Cluster Management Software) allows for extended control of the cluster as a single unit.

## **DATA STORAGE SOLUTIONS**

Microway provides data storage solutions for applications with rapidly expanding storage requirements.

- Entry level RAID
- High-end Fibre Channel SANs
- Scalable NAS with highly available cluster file system
- Software support for load balancing and failover clustering
- Tape drives and libraries

## **LONGER CLUSTER LIFE**

Across the Board™ Cooling is a standard design feature in every Microway chassis to ensure processors and memory are cooled for longer life and flawless performance.



**Microway CoolFlow™ Xeon Chassis**

Microway's CoolFlow™ chassis includes four internal fans plus one blower with strategically placed baffles for optimum cooling. CoolFlow is the coolest running chassis in the industry.

All clusters are thoroughly burned in with both stand-alone tests as well as MPI/NAS tests in the exact configuration specified by the customer at time of order. We build our own 1U chassis. Design criteria include ready access to peripherals and excellent cooling with redundant fans and Nomex wind tunnels driven by negative pressure. This results in very high air flow rates over the processors and memory modules, dramatically increasing their life expectancy.

## **INTEGRATION AND CONSULTING SERVICES**

As the use of Linux clusters expands beyond the traditional base of early adopters, users need access to experts on the deployment of software on clusters. In addition, many industries have literally dozens of commercial and open source software available to do various types of analytic work. Microway offers professional consulting services with application expertise that extends beyond the design of their fully integrated HPC cluster. These include evaluation and recommendations for data warehousing, project management, network/data center design, custom software installations, integration and management systems that best suit their individual needs.



**OFFERING HPC SOLUTIONS SINCE 1982**

**Discover the uncompromising value Microway customers expect. Call our sales team at 508-746-7341 or visit [www.microway.com](http://www.microway.com)**  
*Sign up for Microway's technical newsletter at [www.microway.com/newsletter](http://www.microway.com/newsletter)*

# Fully-integrated, Robust Clusters for High Performance Computing Applications



## PLATFORM

Dual Intel® Xeon™ processor motherboard (up to 3.06 GHz and 1 MB L2 cache)

Up to 16 GB DDR RAM\*

533 MHz front side bus

Integrated ATI Rage graphics

Dual Gigabit Ethernet

## BENEFITS

Cost-effective, scalable processing power for HPC and enterprise applications

Memory capacity and flexibility to support a wide range of solutions

Full bandwidth, low latency memory access

High-quality video without the need for a video-adaptor card

Support for network teaming and channel bonding for improved network I/O



Microway Custom 1U Dual Intel Xeon CoolFlow™ Chassis

## SUPPORTED MOTHERBOARDS

- Tyan® S2721
- SuperMicro® X5DPE, X5DP8, X5DPL

## HIGH SPEED INTERCONNECT

- Myrinet™
- InfiniBand™
- Gigabit Ethernet

## CHASSIS/MOTHERBOARD SPECIFICATIONS

- 1U 19" standard rack mount
- One full-length PCI-X slot accessible on chassis front [64-bit 133/100/66 MHz (3.3v)]
- I/O features: chassis front access for keyboard, mouse, USB, video, serial, parallel and Ethernet ports
- Hard Drives: (2) internal hard drive storage bays
- Storage Options: (1) 3.5" floppy drive on back; or (1) Slim-line CD-ROM 24X on back; or (1) Slim-line CD-ROM and (1) 1.44 Slim floppy
- Power Good/Disk Activity LED indicators
- Rear 25.5 cfm exhaust blower for heat dissipation
- Pre-plated steel chassis plus mounting kit and rails
- Rated Power: 460 or 350 Watt 1U power supply
- Measured max sustained power consumption at 115VAC/60hz as 2.5 amps, 288 Watts, 983 BTU/hr
- 17.00(W) X 27.50(D) X 1.75(H) inches  
43.18 (W) X 69.85 (D) X 4.45 (H) centimeters

## SOFTWARE OPTIONS

- Intel Software Development Products
- RedHat Linux with MPICH, PVM, PBS
- SuSE Linux/United Linux
- Mandrake Linux
- Scyld Beowulf Cluster
- Platform ClusterWare and LSF® 5
- MPI/Pro®
- MCMS™ (Microway Cluster Management Software)
- Intel, PGI, Absoft, Lahey, GNU and other compilers

## NODEWATCH™ REMOTE HARDWARE MONITORING SOLUTION

- Web-enabled remote cluster status and physical power and reset control.
- Automatically monitors up to 5 temperatures, 3 voltages, and 11 fans, including power supply fans.
- Out-of-bound values are displayed uniquely and alarm sent to system administrator via email.
- Monitors nodes even those that are powered off.
- Entire cluster or individual nodes can be switched on and off, rebooted, and reset remotely.
- Physical measurements integrated by Microway into Ganglia reporting software.
- Common operating system tasks, such as shutdown, are integrated into the user interface.
- Monitored information collected via independent 18MHz embedded NodeWatch board and transmitted via physically independent RS485 serial network.
- No software resides on compute nodes.
- NodeWatch is fully customer configurable and information is delivered securely via a Web-based GUI.

## WARRANTY

- Two year off-site

**GSA** Schedule Number:  
**GS-35F-0431N**

**For more information on the Dual 1U chassis, or any of Microway's products, contact:**

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