

# CRN

*The Newsweekly For Builders Of Technology Solutions*

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## **CRN Builds First Ultimate White-Box Server**



By Vincent A. Randazzese

Using best-of-breed components, CRN Technical Editor Vincent Randazzese built the Test Center's first Ultimate White-Box Server before an audience of system builders and component vendors at the Tech Builder XChange conference in Coronado, Calif. The components selected for the server balanced excellence in innovation, functionality and performance. This year's Ultimate Server includes dual 3.06GHz Intel Xeon processors with a 533MHz front-side bus; 12 Gbytes of registered ECC DDR266SDRAM; four hard drives with a RAID 5 setup, using the fourth as a hot spare; and a motherboard from Intel, code-named Harlingen, with the entire kit and caboodle on board.

The subsystems in this Ultimate Server were hand-selected and run through the mill to offer up the most reliable and durable server. Some choices were based solely on performance, while others were picked based on performance as well as other criteria. For example, the motherboard was the best performer of the group but was also selected because it incorporated dual U320 SCSI on board as well as dual Gigabit Ethernet. The decision to move from 100BaseT technology to Gigabit Ethernet will become a staple in server building moving forward.

When it comes to server construction, the most important factors are redundancy and proper cooling. Even with all of the components incorporated into the Ultimate White-Box server, the Intel Chassis SC5200 (Hudson) offered up enough cooling and redundancy to satisfy both objectives.

## INTEL SERVER BOARD SE7501HG2

Price: \$770

Intel

Santa Clara, Calif.

(408) 765-8080

Warranty: 3 year limited

[www.intel.com](http://www.intel.com)



The motherboard is an Intel-based dual processor board. The SE7501HG2 supports two 3.06GHz processors, a 533MHz system bus and 512 Kbytes of cache. It includes dual U320 SCSI from Adaptec and dual Intel pro Gigabit network connections. It also provides triple peer PCI buses and six PCI slots, with three PCI-X slots supporting speeds up to 133MHz.

## INTEL SERVER CHASSIS SC5200

Price: \$905

Intel

Santa Clara, Calif.

(408) 765-8080

Warranty: 3 year limited

[www.intel.com](http://www.intel.com)



The system cabinet from Intel, code-named Hudson, is hot-swappable with redundant power. Opening the top of the cabinet is like opening the trunk of a car, and there's a lot of room for maneuverability so there's easy access to all components. The system case also provides plenty of cooling, with its five hot-swappable fans for the high-spinning SCSI drives, high-frequency memory modules and dual processors.

## INTEL XEON PROCESSOR, 3.06GHz

Price: \$690

Intel

Santa Clara, Calif.

(408) 765-8080

[www.intel.com](http://www.intel.com)



The processor of choice is Intel's dual Xeon 3.06GHz processor, code-named Prestonia. The processor boasts a 533MHz front-side bus and 512 Kbytes of L2 cache and supports Hyper-Threading--all responsible for boosting the performance and scalability of the platform.

## SONY DUAL RW DVD DRIVE

Price: \$349.99t

Sony Electronics

San Jose, Calif.

800-352-7669

[www.storagebysony.com](http://www.storagebysony.com)



A new trend in the white-box arena is that more and more software is coming on DVD, giving administrators a

break from loading CD after CD when configuring a system. The Test Center went the extra yard and incorporated a DVD burner to satisfy the new trend and include a simple backup solution.

Sony's DRU-500AX is the first plus-minus drive the Test Center has seen. It is capable of recording both 4X compatible DVD R and DVD-R discs at up to 4X speeds. It supports four DVD recording formats for recording functionality and playback compatibility. By supporting all of the DVD recordable and rewriteable formats, the unit gives the user every option for choosing media.

### **CHEETAH 15K.3**

Price: \$700

Seagate Technology

Scotts Valley, Calif.

831-453-6500

[www.seagate.com](http://www.seagate.com)



Cheetah 15K.3 drives offer 35 percent more I/Os per second than do 10K drives. The drives are of 73 Gbytes in capacity moving at 15K RPM and are Ultra 320-ready. A server needs fewer 15K drives than 10K drives to deliver the same amount of I/Os per second. That leads to greater overall system reliability, saving on hardware, space, cooling and IT administration costs.

### **MEGARAC G2**

Price: \$599t

American Megatrends (AMI)

Norcross, Ga.

(770) 246-8610

[www.ami.com](http://www.ami.com)



The MegaRAC G2 is a PCI management card ideal for any server. The card adds value in any system and acts as a tool for remote system management.

Some of the tools the KVM-over-IP device offers are video redirection at up to 15 screens per second, remote power cycling, system-health alerts, automatic reboots and an optional battery backup. Bottom line, the card is a great preventative measure against downtime.

### **KINGSTON VALUERAM 2GB 266MHz DDR PC2100 REG ECC DIMM**

Price: \$1,607 MSRP

Kingston Technology

Kingston Technology

Fountain Valley, Calif.

(800) 337-8410

[www.kingston.com](http://www.kingston.com) or [www.valueram.com](http://www.valueram.com)



Choosing Kingston memory modules was a no-brainer. With all of the transitions from memory standard to memory standard over the years, Kingston always seems to make a stable and reliable module that the Test Center stands by. The modules are registered ECC DDR266 SDRAM and are 2 Gbytes in size.

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