Performance Brief

IBM® @server™ BladeCenter® delivers high performance and scalability for secure Web-hosting

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The BladeCenter and BladeCenter server products are designed for extremely high-density rack environments where space is at a premium -- capable of holding up to 84 blades per rack. Every component has been designed or selected to pack the highest levels of function into the smallest space, yet maintain high levels of reliability.

BladeCenter Highlights

- High-density, 7 U high modular design
- Holds up to 14 BladeCenter HS20 blades with up to 28 processors
- Up to six BladeCenter enclosures per 42 U rack

BladeCenter HS20 Highlights

- 3.06GHz(1) Intel® Xeon™ processor with MicroBurst architecture and hyperthreading technology
- High-speed 512MB Double Data Rate (DDR) ECC SDRAM memory
- Dual-Gigabit Ethernet controllers with failover support
- Support for Fibre Channel or additional Ethernet connections
- Integrated management processor
- Integrated IDE controller and connectors for two IDE hard drives

The SPECweb99_SSL(2) benchmark was used to measure the performance of a single BladeCenter server using two 3.06GHz Xeon processors. The results and configuration details are summarized below.

SPECweb99_SSL - Conforming Simultaneous Connections
1,304
System Hardware
Two 3.06GHz Xeon Processors each with 512KB L2 Cache
8GB Memory
Two 40GB IDE Disk Drives
Embedded IDE Controller
Operating System and HTTPS Software
Red Hat Linux 7.3

Zeus V4.2R2
Server Cache: None
Network Hardware
One Embedded Gigabit Controller
Nortel Networks Gigabit Switch

The SPECweb99_SSL results for the BladeCenter server are posted at www.spec.org.

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Notes

(1) GHz only measures microprocessor internal clock speed, not application performance. Many factors affect application performance.

(2) SPECweb99_SSL, a new benchmark released in April 2002, adds Secure Sockets Layer (SSL) Protocol support to SPECweb99, the acknowledged worldwide standard for web server performance evaluation. It tests secure Web server performance using HTTP 1.0/1.1 over the SSL Protocol. It is an extension of, rather than a replacement for, SPECweb99. SPECweb99_SSL adopts an industry-accepted workload to measure the performance capabilities of a web server with added SSL encryption/decryption. The benchmark's metric represents the number of simultaneous connections that a secure Web server can support while meeting specific throughput and error-rate requirements.