IBM posts SPEC CPU2006 scores for new blade servers using quad-core AMD Opteron processors

June 25, 2008 ... The IBM® BladeCenter® chassis and the AMD Opteron™ LS22 and LS42 for IBM BladeCenter combine extremely high-density design points with high performance and advanced server functions. These dense products can double the processing power within a 7U, 8U, or 9U rack space over 1U thin servers with rich systems management and control.

AMD Opteron 64-bit technology enables the processor to run newly written 64-bit code and address larger amounts of memory, while still supporting full native 32-bit instruction sets. These new blade servers can run legacy 32-bit applications and can deliver improved performance for scientific and technical computing applications, and HPC and telecommunications applications.

The AMD Opteron LS22 for IBM BladeCenter is a 2-socket blade that features the quad-core AMD Opteron Model 2356 processor at 2.3GHz with 2MB L2 cache. The AMD Opteron LS42 for IBM BladeCenter is an enterprise-class, 2- or 4-socket blade that features the quad-core AMD Opteron Model 8356 processor at 2.3GHz with 2MB L2 cache with a 1GHz interprocessor HyperTransport bus. (1)

The AMD Opteron LS22 for IBM BladeCenter, configured with the quad-core AMD Opteron Model 2356 processor (2.3GHz, 512 KB L2 cache per core—2 processors/8 cores), achieved leadership scores for SPECint_rate2006, SPECint_rate_base2006, SPECfp_rate2006, and SPECfp_rate_base2006. SPECint2006 and SPECfp2006 scores are competitive.

SPEC® CPU2006 Benchmark	LS22 – Two Quad-Core AMD Opteron Model 2356 (2.3GHz, 2MB L2 Cache)
SPECint2006	15.4
SPECint_rate2006	105
SPECint_rate_base2006	91.8
SPECfp2006	15.6
SPECfp_rate2006	94.7
SPECfp_rate_base2006	86.3

The AMD Opteron LS42 for IBM BladeCenter, configured with the quad-core AMD Opteron Model 8356 processor (2.3GHz, 512KB L2 cache per core—4 processors/16 cores), achieved competitive scores on the SPEC CPU2006 suite of benchmarks.

SPEC CPU2006 Benchmark	LS42 – Four Quad-Core AMD Opteron Model 8356 (2.3GHz, 2MB L2 Cache)
SPECint2006	13.6
SPECint_rate2006	186
SPECint_rate_base2006	161
SPECfp2006	13.8
SPECfp_rate2006	159
SPECfp_rate_base2006	147

These scores are the first SPEC CPU2006 results published for the LS22 blade model using the quad-core AMD Opteron Model 2356 processor and for the LS42 blade model using the quad-core AMD Opteron Model 8356 processor. These results were achieved using SUSE Linux® Enterprise Server 10 SP1 x64.

Results are current as of June 25, 2008. The scores have been submitted to SPEC for review and will be posted on their Web site upon successful completion of the review. View all published results at www.spec.org.

(1) Planned availability for the LS22 blade model using the AMD Opteron Model 2356 quad-core processor at 2.3GHz and with a 2MB L2 cache (115W) is September 12, 2008. Planned availability for the LS42 blade model using the AMD Opteron Model 8356 quad-core processor at 2.3GHz and with a 2MB L2 cache (115W) is September 12, 2008.