

# IBM is the world's leading provider of supercomputing systems

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An independent study released today named IBM as the world's leading provider of both installed supercomputing systems (with 224 systems) as well as total aggregate supercomputing power (with a record total 407 teraflops, or trillions of calculations per second). According to analysis from the TOP500 List of Supercomputers, IBM is the leader in global supercomputing with 50 percent of the total processing power, which is two and a half times more processing power than its closest rival, runner up Hewlett Packard with 19 percent.

For the first time, two IBM Blue Gene/L prototype systems appear on the Top 10 list of supercomputers. The Blue Gene/L prototype represents a radical new design for supercomputing. At 1/20th the physical size of existing machines of comparable power, Blue Gene/L enables dramatic reductions in power consumption, cost and space requirements for businesses requiring immense computing power. For a new architecture to produce so much compute power in such a small package is a stunning achievement, and provides a glimpse of the future of supercomputing.

The number four-ranked Blue Gene/L DD1 Prototype, with a sustained speed of 11.68 teraflops and a peak speed of 16 teraflops, uses more than 8,000 PowerPC processors packed into just four refrigerator-sized racks. This ground breaking system is only 1/16 of its planned final capacity and has skyrocketed to the 4th place from the 73rd spot on the list in November 2003. The eighth-ranked Blue Gene/L DD2 Prototype has a sustained speed of 8.66 teraflops and a peak speed of 11.47

teraflops. The DD2 system is based on the second generation of the Blue Gene/L chips, which are more powerful than those used in the DD1 prototype.

"By giving our clients access to innovative, affordable and flexible supercomputing power like Blue Gene and the Deep Computing Capacity on Demand Center, we are providing new resources to drive breakthroughs in business, science and industry," said Dave Turek, vice president, Deep Computing, IBM. "Whether we are talking about improving the accuracy of weather forecasts, designing better automobiles or improving disease research, we are seeing the advent of a new supercomputing age."

Other key indicators of IBM supercomputing leadership:

IBM has 224 supercomputer systems installed, most of any vendors (44.8 percent of the list are IBM systems)

IBM has most installed computing power with over 407 Teraflops. (50 percent of the total power on the list belongs to IBM)

IBM has the most supercomputers in the Top10 (3)

IBM has the most supercomputers in the Top20 (10)

IBM has the most supercomputers in the Top100 (68)

IBM has the most Linux clusters on the TOP500 List (150)

The "TOP 500 List Supercomputing Sites" is compiled and published by supercomputing experts Jack Dongarra from the University of Tennessee, Erich Strohmaier and Horst Simon of NERSC/Lawrence Berkeley National Laboratory and Hans Meuer of the University of Mannheim (Germany). The entire list can be viewed at [www.top500.org](http://www.top500.org).

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