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TOP500 Supercomputers for June 2004

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23rd Edition of TOP500 List of World's Fastest Supercomputers Released: Japan's Earth Simulator Enters Third Year in Top Position

MANNHEIM, Germany; KNOXVILLE, Tenn.; & BERKELEY, Calif. – In what has become a closely watched event in the world of high-performance computing, the 23rd edition of the TOP500 list of the world's fastest supercomputers was released today (June 23, 2004) at the International Supercomputer Conference in Heidelberg, Germany.

The new TOP500 list, as well as the former lists, can be found on the Web at http://www.top500.org/.

The Earth Simulator supercomputer, built by NEC and installed in 2002 at the Earth Simulator Center in Yokohama, Japan, with its Linpack benchmark performance of 35.86 Tflop/s ("teraflops" or trillions of calculations per second), retains the No. 1 position. However, the other positions in the top 10 showed significant changes, including the first-ever Chinese entry in the top 10.

Here are the highlights from the newest Top 10:
- A new No. 2 system: Thunder, an Intel Itanium2-based cluster system at Lawrence Livermore National Laboratory (LLNL) in California.
- At No. 4 and No. 8 are the prototypes for the upcoming IBM BlueGene/L system. The prototypes are a joint development of LLNL and IBM and are currently at IBM's facility. The final system will be installed at LLNL and is expected to replace the Earth Simulator by June 2005, perhaps even by the end of 2004.
- The No. 6 system is a new IBM p690 system with 1.9 GHz Power4+ processors. The first such system in the world, it is installed at the ECMWF in UK and brings Europe back into the top 10. It also reflects the fact that, for the first time in a long time, the UK has surpassed Germany as the European country with the most TOP500 systems - 36 to 34.
- No. 7 is a second Japanese system built by Fujitsu and installed at RIKEN. It merits special attention as it is a heterogeneous cluster with nodes of different capabilities, which makes it more challenging to achieve good overall performance. It is the first such system that high in the TOP500.
- No. 10 is the first Chinese system ever to enter the top 10. Assembled by a Chinese intergrator, Dawning, the computer is based on AMD's Opteron chip and Los Angeles-based Myricom's Myrinet interconnect network.
- The performance of the No. 10-ranked system jumped to 8.06 teraflop/s, up from 6.6 Tflop/s in the last list. Achieving 8 Tflop/s is no longer enough to enter the top10. The Linux Networx-built, Opteron-based cluster at Los Alamos National Laboratory, with 8.05 Tflop/s, only reached No. 11.
- The "SuperMac" at Virginia Tech, which made a very impressive debut six months ago, is off the latest list - at least temporarily. VT is replacing hardware and the new hardware was not in place for the compiling of this TOP500 list.

General trends from the TOP 500:
The number of systems exceeding the 1 Tflop/s mark on the Linpack benchmark jumped from 130 to 242 - almost half the list.

The 500th system on the list, with 624 gigaflop/s, was listed at No. 242 in the last TOP500 just six months ago. This marks a record turnover rate in the 11-year history of the TOP500. Also, the lowest-ranked system six months ago was 403.4 Gflop/s.

Total accumulated performance, 813 Tflop/s, is approaching the level of a petaflop/s. This compares with a total of 528 Tflop/s six months ago.

The entry point for the top 100 moved from 1.142 Gflop/s to 1.922 Tflop/s.

Other trends of interest:

A total of 287 systems are now using Intel processors. Six months ago, there were 189 Intel-based systems on the list and one year ago only 119. The second most common processors are IBM Power processor (75 systems) ahead of HP's PA-RISC processors (57) and AMD processors (34).

There are 291 systems now labeled as clusters, up from 208 in November 2003. This makes clustered systems the most common architecture in the TOP500.

At present, IBM and Hewlett-Packard sell the bulk of systems at all performance levels of the TOP500. IBM became clear leader in this edition of the TOP500 list with 44.80 percent of the systems and 50.12 percent of installed performance. HP is second with 28 percent of the systems and 18.5 percent of total performance. No other manufacturer is able to capture more than 6 percent in any category.

A new geographical trend, which started during the last few years, is now emerging more clearly. The number of systems in Asian countries other than Japan is rising quite steadily. In this list Japan is listed with 34 systems and all other Asian countries accumulated an additional 55 systems. However, Europe is still ahead of Asia with 124 systems installed.

The TOP500 list is compiled by Hans Meuer of the University of Mannheim, Germany; Erich Strohmaier and Horst Simon of NERSC/Lawrence Berkeley National Laboratory; and Jack Dongarra of the University of Tennessee.

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TOP500 Sublist for June 2004

TOP500 Team

http://www.top500.org/

Rank	Site	Manufacturer	Computer	Inst. type	Country	Year	Rmax	Processors	Rpeak	Nmax	Nhalf	Interconnect
1	The Earth Simulator Center	NEC	Earth-Simulator	Research	Japan	2002	35860.00	5120	40960.00	1075200	266240	Crossbar
2	Lawrence Livermore National Laboratory	California Digital Corporation	Intel Itanium2 Tiger4 1.4GHz - Quadrics	Research	United States	2004	19940.00	4096	22938.00	975000	110000	Quadrics
3	Los Alamos National Laboratory	Hewlett-Packard	ASCI Q - AlphaServer SC45, 1.25 GHz	Research	United States	2002	13880.00	8192	20480.00	633000	225000	Quadrics
4	IBM - Rochester	IBM/ LLNL	BlueGene/L DD1 Prototype (0.5GHz PowerPC 440 w/Cus	Vendor	United States	2004	11680.00	8192	16384.00	331775		Proprietary
5	NCSA	Dell	PowerEdge 1750, P4 Xeon 3.06 GHz, Myrinet	Academic	United States	2003	9819.00	2500	15300.00	630000		Myrinet
6	ECMWF	IBM	eServer pSeries 690 (1.9 GHz Power4+)	Research	United Kingdom	2004	8955.00	2112	16051.00	350000		SP Switch
7	Institute of Physical and Chemical Res. (RIKEN)	Fujitsu	RIKEN Super Combined Cluster	Research	Japan	2004	8728.00	2048	12534.00	474200	120000	Mixed
8	IBM Thomas J. Watson Research Center	IBM/ LLNL	BlueGene/L DD2 Prototype (0.7 GHz PowerPC 440)	Research	United States	2004	8655.00	4096	11469.00	294911		Proprietary
9	Pacific Northwest National Laboratory	Hewlett-Packard	Cluster Platform 6000 rx2600 Itanium2 1.5 GHz, Qua	Research	United States	2003	8633.00	1936	11616.00	835000	140000	Quadrics
10	Shanghai Supercomputer Center	Dawning	Dawning 4000A, Opteron 2.2 GHz, Myrinet	Research	China	2004	8061.00	2560	11264.00	728400	180000	Myrinet
11	Los Alamos National Laboratory	Linux Networx	Opteron 2 GHz, Myrinet	Research	United States	2003	8051.00	2816	11264.00	761160	109208	Myrinet
12	Lawrence Livermore National Laboratory	Linux Networx/Quadrics	MCR Linux Cluster Xeon 2.4 GHz - Quadrics	Research	United States	2002	7634.00	2304	11060.00	350000	75000	Quadrics
13	Lawrence Livermore National Laboratory	IBM	ASCI White, SP Power3 375 MHz	Research	United States	2000	7304.00	8192	12288.00	640000		SP Switch
14	NERSC/LBNL	IBM	SP Power3 375 MHz 16 way	Research	United States	2002	7304.00	6656	9984.00	640000		SP Switch
15	NCSA	IBM	TeraGrid, Itanium2 1.3/1.5 GHZ, Myrinet	Academic	United States	2004	7215.00	1776	10259.00	540000		Myrinet
16	Lawrence Livermore National Laboratory	IBM/Quadrics	xSeries Cluster Xeon 2.4 GHz - Quadrics	Research	United States	2003	6586.00	1920	9216.00	425000	90000	Quadrics
17	Lawrence Livermore National Laboratory	IBM	xSeries Xeon 3.06 GHz, Quadrics	Research	United States	2004	6232.00	1540	9425.00			Quadrics
18	HPCx	IBM	eServer pSeries 690 (1.7 GHz Power4+)	Academic	United Kingdom	2004	6188.00	1600	10880.00	355000		SP Switch
19	Grid Technology Research Center, AIST	IBM	AIST Super Cluster P-32, Opteron 2.0 GHz, Myrinet	Research	Japan	2004	6155.00	2200	8800.00			Myrinet
20	Oak Ridge National Laboratory	Cray Inc.	Cray X1	Research	United States	2004	5895.00	504	6451.00	494592	53760	Crossbar
21	Forschungszentrum Juelich (FZJ)	IBM	eServer pSeries 690 (1.7 GHz Power4+)	Research	Germany	2004	5568.00	1312	8921.00	660000	60000	SP Switch
22	National Aerospace Laboratory of Japan	Fujitsu	PRIMEPOWER HPC2500 (1.3 GHz)	Research	Japan	2002	5406.00	2304	11980.00	658800	100080	Crossbar
23	UCSD/San Diego Supercomputer Center	IBM	eServer pSeries 655/690 (1.5/1.7 Ghz Power4+)	Academic	United States	2004	5223.00	1680	10310.00	540000		SP Switch
24	Kyoto University	Fujitsu	PRIMEPOWER HPC2500 (1.56 GHz)	Academic	Japan	2004	4552.00	1472	9185.00	749340	90390	Crossbar
25	Pittsburgh Supercomputing Center	Hewlett-Packard	AlphaServer SC45, 1 GHz	Academic	United States	2001	4463.00	3016	6032.00	280000	85000	Quadrics
26	Chinese Academy of Science	lenovo	DeepComp 6800, Itanium2 1.3 GHz, QsNet	Academic	China	2003	4193.00	1024	5324.80	491488		Quadrics
27	NCAR (National Center for Atmospheric Research)	IBM	pSeries 690 Turbo 1.3 GHz	Research	United States	2003	4184.00	1600	8320.00	550000	93000	SP Switch
28	Commissariat a l'Energie Atomique (CEA)	Hewlett-Packard	AlphaServer SC45, 1 GHz	Research	France	2001	3980.00	2560	5120.00	360000	85000	Quadrics
29	Lawrence Livermore National Laboratory	IBM	eServer pSeries 655 (1.5 GHz Power4+)	Research	United States	2004	3812.00	1024	6144.00	428800	42400	SP Switch
30	Lawrence Livermore National Laboratory	IBM	eServer pSeries 655 (1.5 GHz Power4+)	Research	United States	2004	3812.00	1024	6144.00	428800	42400	SP Switch
31	Geoscience (C)	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United Kingdom	2004	3755.00	1128	6903.36			Gigabit Ethernet
32	Geoscience (C)	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United Kingdom	2004	3755.00	1128	6903.36			Gigabit Ethernet
33	Semiconductor Company (D)	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	Israel	2004	3755.00	1120	6854.40			Gigabit Ethernet
34	Bank (H)	IBM	BladeCenter Xeon 3.06 GHz, Gig-Ethernet	Industry	Germany	2004	3755.00	1064	6511.68			Gigabit Ethernet
35	ConocoPhillips	IBM	BladeCenter Xeon 3.06 GHz, Gig-Ethernet	Industry	United States	2004	3755.00	1056	6462.72			Gigabit Ethernet
36	PGS	IBM	xSeries Cluster Xeon 3.06 GHz - Gig-E	Industry	United States	2003	3755.00	1024	6266.88			Gigabit Ethernet
37	Petroleum Company (C)	IBM	xSeries Cluster Xeon 3.06 GHz - Gig-E	Industry	Brazil	2004	3755.00	1024	6266.88			Gigabit Ethernet
38	Westgrid	IBM	BladeCenter Xeon 3.06 GHz, Gig-Ethernet	Academic	Canada	2003	3755.00	1008	6168.96			Gigabit Ethernet
39	IBM - Deep Computing Capacity on Demand Center	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United States	2004	3755.00	1000	6120.00	390000		Gigabit Ethernet
40	Naval Oceanographic Office (NAVOCEANO)	IBM	pSeries 690 Turbo 1.3 GHz	Research	United States	2004	3717.20	1408	7321.60			SP Switch
41	Forecast Systems Laboratory - NOAA	HPTi	Aspen Systems, Dual Xeon 2.2 GHz - Myrinet2000	Research	United States	2002	3337.00	1536	6758.00	285000	75000	Myrinet
42	Institute of Scientific Computing/Nankai University	IBM	xSeries Xeon 3.06 GHz, Myrinet	Academic	China	2004	3231.00	768	4700.00	301000	59000	Myrinet
43	UCSD/San Diego Supercomputer Center	IBM	TeraGrid Cluster, Itanium 2 1.3 GHz, Myrinet	Academic	United States	2004	3152.00	768	3993.00	350000		Myrinet

Rank	Site	Manufacturer	Computer	Inst. type	Country	Year	Rmax	Processors	Rpeak	Nmax	Nhalf	Interconnect
44	University of Southern California	IBM, Sun, Myricom	Sun Fire V60, IBM xServer,2.0-3.0 GHz, Myrinet	Academic	United States	2004	3150.00	1444	4851.00	280000	140000	Myrinet
45	Korea Institute of Science and Technology	IBM	xSeries Xeon 2.4 GHz, Myrinet	Research	Korea, South	2004	3067.00	1024	4915.20	230000		Myrinet
46	Semiconductor Company (E)	IBM	xSeries Cluster Xeon 3.06 GHz - Gig-E	Industry	United States	2003	3004.00	800	4896.00			Gigabit Ethernet
47	Government	Cray Inc.	Cray X1	Classified	United States	2003	2932.90	252	3225.60	338688	44288	Crossbar
48	Semiconductor Company (C)	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United States	2004	2928.90	780	4773.60			Gigabit Ethernet
49	Sandia National Laboratories	Hewlett-Packard	Cluster Platform DL360G3, Pentium4 Xeon 2.8 GHz, M	Research	United States	2004	2880.00	1024	5734.40			Myrinet
50	Sandia National Laboratories	Hewlett-Packard	Cluster Platform DL360G3, Pentium4 Xeon 2.8 GHz, M	Research	United States	2004	2880.00	1024	5734.40			Myrinet
51	IBM	IBM	eServer pSeries 690 (1.9 GHz Power4+)	Vendor	United States	2004	2849.11	672	5107.20			SP Switch
52	ECMWF	IBM	pSeries 690 Turbo 1.3GHz	Research	United Kingdom	2002	2560.00	960	4992.00			SP Switch
53	ECMWF	IBM	pSeries 690 Turbo 1.3GHz	Research	United Kingdom	2002	2560.00	960	4992.00			SP Switch
54	Environment Canada	IBM	pSeries 690 Turbo 1.3GHz	Research	Canada	2004	2560.00	960	4992.00			SP Switch
55	Energy Company	Hewlett-Packard	Cluster Platform 6000 rx5670-4x256, Itanium2 1.3 G	Industry	United States	2003	2556.00	1024	5324.80			Gigabit Ethernet
56	University of Alaska - ARSC	IBM	eServer pSeries 655 (1.5 GHz Power4+)	Academic	United States	2004	2510.27	672	4032.00			SP Switch
57	Walt Disney Feature Animation	Hewlett-Packard	Cluster Platform 3000 DL360G3, Xeon 3.2 GHz, Myrin	Industry	United States	2004	2496.00	750	4800.00			Myrinet
58	Texas Advanced Computing Center/Univ. of Texas	Dell-Cray	PowerEdge 1750, Pentium4 Xeon 3.06 GHz, Myrinet	Academic	United States	2003	2455.00	600	3672.00	252000		Myrinet
59	NASA/Ames Research Center/NAS	SGI	SGI Altix 1.5 GHz	Research	United States	2004	2439.00	512	3072.00	252960		NUMAlink
60	Digital Media Company (C)	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United Kingdom	2004	2403.20	640	3916.80			Gigabit Ethernet
61	Sandia National Laboratories	Intel	ASCI Red	Research	United States	1999	2379.00	9632	3207.00	362880	75400	Proprietary
62	Oak Ridge National Laboratory	IBM	pSeries 690 Turbo 1.3GHz	Research	United States	2002	2310.00	864	4492.80	275000	62000	SP Switch
63	CINECA	IBM	xSeries Xeon 3.06 GHz, Myrinet	Academic	Italy	2003	2223.15	512	3133.44			Myrinet
64	Sandia National Laboratories	IBM	xSeries Xeon 3.06 GHz, Myrinet	Research	United States	2004	2223.15	512	3133.44			Myrinet
65	Louisiana State University	Atipa Technology	P4 Xeon 1.8 GHz - Myrinet	Academic	United States	2002	2207.00	1024	3686.40	280000	56000	Myrinet
66	Max-Planck-Gesellschaft MPI/IPP	IBM	pSeries 690 Turbo 1.3 GHz	Research	Germany	2003	2198.44	822	4274.40			SP Switch
67	NASA/Goddard Space Flight Center	Hewlett-Packard	AlphaServer SC45, 1 GHz	Research	United States	2002	2164.00	1392	2784.00	320000	40000	Quadrics
68	Meteorological Research Institute/JMA	NEC	SX-6/248M31 (typeE, 1.778ns)	Research	Japan	2004	2155.00	248	2232.00	220224	21816	Crossbar
69	Lawrence Livermore National Laboratory	IBM	ASCI Blue-Pacific SST, IBM SP 604e	Research	United States	1999	2144.00	5808	3856.50	431344		SP Switch
70	US Army Research Laboratory (ARL)	IBM	pSeries 690 Turbo 1.3GHz	Research	United States	2002	2140.00	800	4160.00			SP Switch
71	Sony Pictures Imageworks	IBM	xSeries Cluster Xeon 3.06 GHz - Gig-E	Industry	United States	2003	2132.84	568	3476.16			Gigabit Ethernet
72	Atomic Weapons Establishment	IBM	SP Power3 375 MHz 16 way	Classified	United Kingdom	2002	2106.00	1920	2880.00			SP Switch
73	Deutscher Wetterdienst	IBM	SP Power3 375 MHz 16 way	Research	Germany	2003	2106.00	1920	2880.00			SP Switch
74	Universitaet Wuppertal	Angstrom Microsystems	ALiCEnext, Opteron 1.8 GHz, GigE, Parastation	Academic	Germany	2004	2083.00	1024	3686.40			Gigabit Ethernet
75	Semiconductor Company (C)	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United States	2004	2065.25	550	3366.00			Gigabit Ethernet
76	Oracle Corporation	Hewlett-Packard	Cluster Platform 3000 DL380G3, Pentium4 Xeon 2.8 G	Industry	United States	2004	2044.00	702	3931.20			Myrinet
77	WETA Digital	IBM	BladeCenter Cluster Xeon 2.8 GHz, Gig-Ethernet	Industry	New Zealand	2003	2026.00	1176	6585.60			Gigabit Ethernet
78	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2003	2026.00	1140	6384.00			Gigabit Ethernet
79	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2003	2026.00	1140	6384.00			Gigabit Ethernet
80	WETA Digital	IBM	BladeCenter Cluster Xeon 2.8 GHz, Gig-Ethernet	Industry	New Zealand	2003	2026.00	1080	6048.00			Gigabit Ethernet
81	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2003	2026.00	1030	5768.00			Gigabit Ethernet
82	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2003	2026.00	1028	5756.80			Gigabit Ethernet
83	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2003	2026.00	1028	5756.80			Gigabit Ethernet
84	C.O.R.E. Digital Pictures Inc	IBM	BladeCenter Xeon 2.8 GHz, Gig-Ethernet	Industry	Canada	2004	2026.00	1008	5644.80			Gigabit Ethernet
85	Geotrace	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2004	2026.00	1000	5600.00			Gigabit Ethernet
86	Geotrace	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2003	2026.00	1000	5600.00			Gigabit Ethernet

Rank	Site	Manufacturer	Computer	Inst. type	Country	Year	Rmax	Processors	Rpeak	Nmax	Nhalf	Interconnect
87	GX Technology	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2004	2026.00	880	4928.00			Gigabit Ethernet
88	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2004	2026.00	712	3987.20			Gigabit Ethernet
89	Geoscience (D)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	Mexico	2003	2026.00	706	3953.60			Gigabit Ethernet
90	Geoscience (D)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	Mexico	2003	2026.00	706	3953.60			Gigabit Ethernet
91	Geoscience (D)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	Mexico	2003	2026.00	706	3953.60			Gigabit Ethernet
92	UBS Warburg	IBM	BladeCenter Xeon 2.8 GHz, Gig-Ethernet	Industry	United Kingdom	2004	2026.00	650	3640.00			Gigabit Ethernet
93	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz, GigEthernet	Industry	United States	2004	2019.48	608	3404.80			Gigabit Ethernet
94	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz, GigEthernet	Industry	United States	2004	2019.48	608	3404.80			Gigabit Ethernet
95	University at Buffalo, SUNY, Center for Computational Res.	Dell	PowerEdge 2650 Cluster P4 Xeon 2.4 GHz - Myrinet	Academic	United States	2002	2004.00	600	2880.00	253400	42200	Myrinet
96	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2003	1999.91	602	3371.20			Gigabit Ethernet
97	Grid Technology Research Center, AIST	Linux Networx	AIST Super Cluster F-32, Xeon 3.06 GHz, GigE	Research	Japan	2004	1997.00	512	3133.40	331968		Gigabit Ethernet
98	Semiconductor Company (D)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	Israel	2003	1993.38	600	3360.00			Gigabit Ethernet
99	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2003	1928.15	580	3248.00			Gigabit Ethernet
100	PETROBRAS	IBM	BladeCenter Xeon 3.2 GHz, Gig-E	Industry	Brazil	2004	1922.56	512	3276.80			Gigabit Ethernet
101	Petroleum Company (D)	IBM	BladeCenter Xeon 3.06 GHz, Gig-Ethernet	Industry	China	2004	1922.56	512	3133.44			Gigabit Ethernet
102	Naval Oceanographic Office (NAVOCEANO)	IBM	eServer pSeries 655 (1.5 GHz Power4+)	Research	United States	2004	1918.57	512	3072.00			SP Switch
103	National Centers for Environmental Prediction	IBM	pSeries 690 Turbo 1.3GHz	Research	United States	2002	1849.00	704	3660.80	240000	32500	SP Switch
104	National Centers for Environmental Prediction	IBM	pSeries 690 Turbo 1.3GHz	Research	United States	2002	1849.00	704	3660.80	240000	32500	SP Switch
105	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2004	1817.26	546	3057.60			Gigabit Ethernet
106	University at Buffalo, SUNY, Center for Computational Res.	IBM	BladeCenter Xeon 2.8 GHz, Gig-Ethernet	Academic	United States	2004	1817.26	546	3057.60			Gigabit Ethernet
107	Silicon Graphics	SGI	SGI Altix 1.3 GHz	Vendor	United States	2004	1793.00	512	2662.40			NUMAlink
108	SARA (Stichting Academisch Rekencentrum)	SGI	SGI Altix 1.3 GHz	Academic	Netherlands	2003	1793.00	416	2163.00	298799		NUMAlink
109	IBM/US Army Research Laboratory (ARL)	IBM	eServer Opteron 2.2 GHz. Myrinet	Vendor	United States	2004	1785.00	594	2613.60			Myrinet
110	IBM/US Army Research Laboratory (ARL)	IBM	eServer Opteron 2.2 GHz. Myrinet	Vendor	United States	2004	1785.00	594	2613.60			Myrinet
111	IBM/US Army Research Laboratory (ARL)	IBM	eServer Opteron 2.2 GHz. Myrinet	Vendor	United States	2004	1779.00	592	2604.80			Myrinet
112	IBM/US Army Research Laboratory (ARL)	IBM	eServer Opteron 2.2 GHz. Myrinet	Vendor	United States	2004	1779.00	592	2604.80			Myrinet
113	KISTI Supercomputing Center	IBM	xSeries Xeon 2.8 GHz - Myrinet	Research	Korea, South	2004	1762.00	512	2867.00	240000	37000	Myrinet
114	VW (Volkswagen AG)	IBM	xSeries Xeon 2.8 GHz - Myrinet	Industry	Germany	2004	1762.00	512	2867.00	240000	37000	Myrinet
115	KISTI Supercomputing Center	IBM	pSeries 690 Turbo 1.7 GHz	Research	Korea, South	2003	1760.00	544	3699.20	400000		SP Switch
116	Semiconductor Company (C)	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	United States	2003	1755.00	1834	8803.20			Gigabit Ethernet
117	Compagnie Generale de Geophysique (CGG)	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	United Kingdom	2003	1755.00	1100	5280.00			Gigabit Ethernet
118	Arizona State University/TGEN	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Academic	United States	2003	1755.00	1048	5030.40			Gigabit Ethernet
119	Paradigm Geophysical	IBM	BladeCenter Cluster Xeon 2.4 GHz, Gig-Ethernet	Research	United States	2003	1755.00	1024	4915.20	335000	41600	Gigabit Ethernet
120	TotalFinaElf	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	France	2003	1755.00	1024	4915.20	335000	41600	Gigabit Ethernet
121	Compagnie Generale de Geophysique (CGG)	IBM	BladeCenter Cluster Xeon 2.8 GHz, Gig-Ethernet	Industry	United Kingdom	2003	1732.46	520	2912.00			Gigabit Ethernet
122	University of Tokyo	Hitachi	SR8000/MPP	Academic	Japan	2001	1709.10	1152	2074.00	141000	16000	Crossbar
123	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2003	1699.85	510	2856.00			Gigabit Ethernet
124	SG SGBI	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	France	2003	1685.49	968	4646.40			Gigabit Ethernet
125	Media & Entertainment (B)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2004	1667.23	500	2800.00			Gigabit Ethernet
126	Leibniz Rechenzentrum	Hitachi	SR8000-F1/168	Academic	Germany	2002	1653.00	168	2016.00	160000	19560	Crossbar
127	Media & Entertainment (A)	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United States	2004	1652.20	440	2692.80			Gigabit Ethernet
128	Fleet Numerical Meteorology and Oceanography Center	IBM	xSeries Xeon 2.8 GHz - Myrinet	Research	United States	2004	1649.71	478	2676.80			Myrinet
129	Semiconductor Company (C)	IBM	xSeries Cluster Xeon 2.8 GHz - Gig-Ethernet	Industry	United States	2004	1647.66	494	2766.40			Gigabit Ethernet

Rank	Site	Manufacturer	Computer	Inst. type	Country	Year	Rmax	Processors	Rpeak	Nmax	Nhalf	Interconnect
130	Manufacturer (G)	IBM	eServer pSeries 655 (1.7 GHz Power4+, GigE)	Industry	United States	2004	1636.00	1152	7833.60			Gigabit Ethernet
131	Manufacturer (G)	IBM	eServer pSeries 655 (1.7 GHz Power4+, GigE)	Industry	United States	2004	1636.00	1152	7833.60			Gigabit Ethernet
132	Grid Technology Research Center, AIST	IBM	AIST Super Cluster M-64, Itanium2 1.3 GHz, Myrine	Research	Japan	2004	1636.00	512	2662.40	430079		Myrinet
133	CNRS/IDRIS	IBM	eServer pSeries 690 (1.7 GHz Power4+)	Academic	France	2004	1630.00	384	2611.20			SP Switch
134	Media & Entertainment (A)	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United States	2004	1614.65	430	2631.60			Gigabit Ethernet
135	Media & Entertainment (A)	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United States	2004	1614.65	430	2631.60			Gigabit Ethernet
136	Los Alamos National Laboratory	SGI	ASCI Blue Mountain	Research	United States	1998	1608.00	6144	3072.00	374400	138000	HIPPI
137	Veritas DGC	Verari Systems	Opteron 2.2 GHz, GigE	Industry	United States	2004	1580.00	992	4364.80	475000	300000	Gigabit Ethernet
138	GX Technology	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	United States	2003	1576.25	880	4224.00			Gigabit Ethernet
139	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz - Gig-Ethernet	Industry	United States	2004	1575.31	472	2643.20			Gigabit Ethernet
140	Geoscience (A)	IBM	BladeCenter Xeon 3.06 GHz, Gig-Ethernet	Industry	China	2004	1547.06	412	2521.44			Gigabit Ethernet
141	Brigham Young University	IBM	eServer Opteron 2.0 GHz, Myrinet	Academic	United States	2004	1538.75	512	2048.00			Myrinet
142	IBM - Deep Computing Capacity on Demand Center	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United States	2004	1524.53	406	2484.72			Gigabit Ethernet
143	IBM - Deep Computing Capacity on Demand Center	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United States	2004	1524.53	406	2484.72			Gigabit Ethernet
144	IBM - Deep Computing Capacity on Demand Center	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United States	2004	1524.53	406	2484.72			Gigabit Ethernet
145	IBM - Deep Computing Capacity on Demand Center	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United States	2004	1524.53	406	2484.72			Gigabit Ethernet
146	Sandia National Laboratories	Dell	Vplant Cluster P4 XEON 2.4/2.0 GHz - Myrinet	Research	United States	2002	1504.00	660	2963.00	160000		Myrinet
147	Cornell Theory Center	Dell	PowerEdge 2650 Cluster P4 Xeon 2.4 GHz/MSWindows -	Academic	United States	2003	1503.00	640	3073.00	230400		Gigabit Ethernet
148	Sony Online Gaming	IBM	BladeCenter Xeon 3.06 GHz, Gig-Ethernet	Industry	United States	2004	1502.00	400	2448.00			Gigabit Ethernet
149	DKRZ - Deutsches Klimarechenzentrum	NEC	SX-6/192M24	Research	Germany	2003	1484.00	192	1536.00	200064	15744	Crossbar
150	CNRS/IDRIS	IBM	eServer pSeries 655 - 4way (1.7 GHz Power4+)	Academic	France	2004	1477.00	384	2611.20	174000	40000	SP Switch
151	Verisign	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	United States	2003	1476.94	800	3840.00			Gigabit Ethernet
152	University of Toronto	Self-made	PowerRACK-HX dual Xeon 2.4 GHz - SMC GigE	Academic	Canada	2003	1455.00	528	2534.40	170000	80000	Gigabit Ethernet
153	Cray Inc.	Cray Inc.	Cray X1	Vendor	United States	2004	1448.42	124	1587.20			Crossbar
154	US Army HPC Research Center at NCS	Cray Inc.	Cray X1	Research	United States	2003	1448.42	124	1587.20			Crossbar
155	University of Alaska - ARSC	Cray Inc.	Cray X1	Academic	United States	2003	1448.42	124	1587.20			Crossbar
156	IBM	IBM	pSeries 690 Turbo 1.7 GHz GigEth	Vendor	United States	2003	1424.00	384	2611.20	325000		Gigabit Ethernet
157	Energy Company	Hewlett-Packard	Cluster Platform 6000 rx4640-4x136 Itanium2 1.3 GH	Industry	United States	2003	1418.00	544	2828.80			Gigabit Ethernet
158	Naval Oceanographic Office (NAVOCEANO)	IBM	SP Power3 375 MHz	Research	United States	2000	1417.00	1336	2004.00	374000		SP Switch
159	University of Shanghai	Hewlett-Packard	Cluster Platform 3000 DL360G3 Xeon 3.06 GHz, Infin	Academic	China	2004	1401.00	348	2129.80			Infiniband
160	Mississippi State University	IBM	xSeries Xeon 3.06 GHz - Infiniband	Academic	United States	2004	1389.00	384	2350.00	120000		Infiniband
161	Altria Group - Philip Morris Management	IBM	pSeries 690 Turbo 1.3GHz	Industry	United States	2004	1384.00	512	2662.40	200000		SP Switch
162	CINECA	IBM	pSeries 690 Turbo 1.3GHz	Academic	Italy	2002	1384.00	512	2662.40	200000		SP Switch
163	Acxiom	Hewlett-Packard	Cluster Platform 3000 DL360G3, Xeon 3.2 GHz, Myrin	Industry	United States	2004	1382.00	400	2560.00			Myrinet
164	National Institute for Fusion Science	NEC	SX-7/160M5	Research	Japan	2003	1378.00	160	1412.80	200000	15200	Crossbar
165	Raytheon	IBM	BladeCenter Xeon 3.06 GHz, Gig-Ethernet	Industry	United States	2003	1366.82	364	2227.68			Gigabit Ethernet
166	Biotech Company (A)	IBM	BladeCenter Xeon 2.8 GHz, Gig-Ethernet	Industry	United Kingdom	2004	1335.13	400	2240.00			Gigabit Ethernet
167	Petroleum Company (F)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	Netherlands	2004	1335.13	400	2240.00			Gigabit Ethernet
168	Umea University / HPC2N	Hewlett-Packard	HP Opteron 2.2 GHz, Myrinet	Academic	Sweden	2004	1329.00	384	1689.60	422400	31000	Myrinet
169	Evergrow Grid	IBM	xSeries Xeon 3.06 GHz - Gig-E	Academic	Sweden	2004	1321.76	352	2154.24			Gigabit Ethernet
170	Semiconductor Company (C)	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	United States	2004	1310.61	666	3196.80			Gigabit Ethernet
171	Consumer Goods	IBM	eServer pSeries 690 (1.7 GHz Power4+, GigE)	Industry	Australia	2004	1305.33	352	2393.60			Gigabit Ethernet
172	Academy of Mathematics and System Science	lenovo	DeepComp 1800 - P4 Xeon 2 GHz - Myrinet	Academic	China	2002	1297.00	512	2048.00	172000		Myrinet

Rank	Site	Manufacturer	Computer	Inst. type	Country	Year	Rmax	Processors	Rpeak	Nmax	Nhalf	Interconnect
173	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz - Gig-Ethernet	Industry	United States	2004	1281.76	384	2150.40			Gigabit Ethernet
174	Financial Services (H)	IBM	BladeCenter Xeon 3.06 GHz, Gig-Ethernet	Industry	United States	2004	1261.68	336	2056.32			Gigabit Ethernet
175	CEG Gramat	SGI	SGI Altix 1.5 GHz	Industry	France	2004	1258.53	256	1536.00			NUMAlink
176	Los Alamos National Laboratory	SGI	SGI Altix 1.5 GHz	Research	United States	2004	1258.53	256	1536.00			NUMAlink
177	Oak Ridge National Laboratory	SGI	SGI Altix 1.5 GHz	Research	United States	2003	1258.53	256	1536.00			NUMAlink
178	US Army Research Laboratory (ARL)	SGI	SGI Altix 1.5 GHz	Research	United States	2004	1258.53	256	1536.00			NUMAlink
179	Public Sector	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Government	China	2003	1255.99	622	2985.60			Gigabit Ethernet
180	DaimlerChrysler	IBM	xSeries Xeon 3.06 GHz, Myrinet	Industry	Germany	2004	1231.05	260	1591.20			Myrinet
181	ECMWF	IBM	eServer pSeries 690 (1.7 GHz Power4+)	Research	United Kingdom	2004	1222.00	288	1958.40			SP Switch
182	MTU Aero Engines	IBM	xSeries Xeon 3.06 GHz, Myrinet	Industry	Germany	2004	1215.31	256	1566.72			Myrinet
183	University of Liverpool	Dell	PowerEdge 650, 3.06 GHz, Gig Ethernet	Academic	United Kingdom	2003	1212.00	940	5752.80	210000		Gigabit Ethernet
184	Semiconductor Company (C)	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United States	2004	1209.11	322	1970.64			Gigabit Ethernet
185	Semiconductor Company (F)	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	India	2003	1196.41	574	2755.20			Gigabit Ethernet
186	Lawrence Livermore National Laboratory	IBM	SP Power3 375 MHz 16 way	Research	United States	2001	1193.00	1088	1632.00			SP Switch
187	Osaka University	NEC	SX-5/128M8 3.2ns	Academic	Japan	2001	1192.00	128	1280.00	129536	10240	Crossbar
188	Petroleum Company (G)	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	Saudia Arabia	2003	1181.51	562	2697.60			Gigabit Ethernet
189	CSC (Center for Scientific Computing)	IBM	pSeries 690 1.1GHz	Academic	Finland	2002	1170.00	512	2253.00			SP Switch
190	Florida State University	IBM	pSeries 690 1.1GHz	Academic	United States	2002	1170.00	512	2253.00			SP Switch
191	Doshisha University	Visual Technology	Opteron 1.8 GHz, Gig Ethernet	Academic	Japan	2003	1169.00	512	1843.20	220000	59000	Gigabit Ethernet
192	Government	Cray Inc.	T3E1200	Classified	United States	2001	1166.00	1900	2280.00	230016		Cray Interconnect
193	ERDC MSRC	Cray Inc.	T3E1200/900	Research	United States	1999	1166.00	1792	1999.00	230016		Cray Interconnect
194	CSAR at the University of Manchester	SGI	SGI Altix 1.3 GHz	Academic	United Kingdom	2003	1142.00	256	1331.20	334080	46000	NUMAlink
195	Institute of Statistical Mathematics	SGI	SGI Altix 1.3 GHz	Research	Japan	2004	1142.00	256	1331.20	334080	46000	NUMAlink
196	Naval Research Laboratory (NRL)	SGI	SGI Altix 1.3 GHz	Research	United States	2004	1142.00	256	1331.20	334080	46000	NUMAlink
197	Institute of Space & Astronautical Science (ISAS)	NEC	SX-6/128M16 (typeE, 1.778ns)	Research	Japan	2004	1141.00	128	1152.00	327680	8960	Crossbar
198	University of Houston	Hewlett-Packard	Cluster Platform 6000 rx2600 Itanium2 1.3 GHz Clus	Academic	United States	2003	1137.00	304	1580.00			Myrinet
199	DaimlerChrysler	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2004	1134.98	340	1904.00			Gigabit Ethernet
200	Government	Hewlett-Packard	Cluster Platform 3000 DL360G3, Xeon 3.2 GHz, Myrin	Classified	United States	2004	1132.00	300	1920.00			Myrinet
201	National Supercomputer Centre (NSC)	Self-made	Pentium Xeon Cluster 2.2 GHz - SCI 3D	Academic	Sweden	2002	1132.00	400	1760.00	212000	32800	SCI
202	Petroleum Company (A)	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	United States	2003	1129.38	520	2496.00			Gigabit Ethernet
203	UBS Warburg	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United States	2004	1126.50	300	1836.00			Gigabit Ethernet
204	The Wellcome Trust Sanger Institute	IBM	BladeCenter Xeon 2.8 GHz, Gig-Ethernet	Research	United Kingdom	2004	1121.64	336	1881.60			Gigabit Ethernet
205	Compagnie Generale de Geophysique (CGG)	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	Malaysia	2003	1119.44	512	2457.60			Gigabit Ethernet
206	Lockheed Martin	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	United States	2003	1119.44	512	2457.60			Gigabit Ethernet
207	IBM Benchmark and Enablement Center	IBM	eServer pSeries 655 (1.7 GHz Power4+)	Vendor	United States	2004	1107.00	256	1740.80	224000	14000	SP Switch
208	NASA/Goddard Space Flight Center	Self-made	Pentium4 Xeon 2.4 GHz, Myrinet	Research	United States	2003	1104.00	528	2534.40	120000	35000	Myrinet
209	Australian Centre for Advanced Computing and Communications	Dell	PowerEdge 1750, Pentium4 Xeon 3.06 GHz, GigE	Academic	Australia	2003	1095.00	304	1860.48	179000	40000	Gigabit Ethernet
210	Semiconductor Company (C)	IBM	BladeCenter Cluster Xeon 2.4 GHz, Gig-Ethernet	Industry	United States	2003	1089.65	488	2342.40			Gigabit Ethernet
211	CILEA	Exadron	Pentium4 Xeon 3.06 GHz, Myrinet	Research	Italy	2004	1084.00	256	1566.72	247000	38000	Myrinet
212	Nestec S.A.	IBM	pSeries 690 Turbo 1.3GHz	Industry	Switzerland	2003	1081.00	400	2080.00			SP Switch
213	Sandia National Laboratories	Linux Networx	P4 Xeon 3.06 GHz, Infiniband	Research	United States	2003	1076.00	256	1566.72	145000	27350	Infiniband
214	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2004	1068.26	320	1792.00			Gigabit Ethernet
215	Compagnie Generale de Geophysique (CGG)	Dell	PowerEdge 1750, P4 Xeon 3.06 GHz, GigE	Industry	United States	2003	1068.00	1024	6266.88			Gigabit Ethernet

Rank	Site	Manufacturer	Computer	Inst. type	Country	Year	Rmax	Processors	Rpeak	Nmax	Nhalf	Interconnect
216	Media & Entertainment (C)	IBM	eServer pSeries 690 (1.7 GHz Power4+, GigE)	Industry	United States	2004	1068.00	288	1958.40			Gigabit Ethernet
217	US Army Research Laboratory (ARL)	Linux Networx	Pentium4 Xeon 3.06 GHz, Myrinet	Research	United States	2003	1060.00	256	1566.72	159432	29858	Myrinet
218	Indiana University	IBM	AVIDD-B+AVIDD-I - xSeries Cluster Xeon 2.4 GHz - M	Academic	United States	2003	1058.00	384	1843.00	220000		Myrinet
219	General Motors	Hewlett-Packard	Cluster Platform DL360G3, Pentium4 Xeon 2.8 GHz, M	Industry	United States	2003	1057.00	320	1792.00			Myrinet
220	Los Alamos National Laboratory	Linux Networx	Opteron 1.6 GHz, Infiniband	Research	United States	2003	1053.00	512	1638.00	114000	22202	Infiniband
221	University of Kentucky	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HFabric	Academic	United States	2003	1049.00	220	1320.00			Myrinet
222	University of Toronto	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Academic	Canada	2003	1040.00	448	2150.40	195000		Gigabit Ethernet
223	XinJiang Oil	IBM	BladeCenter Cluster Xeon 2.4 GHz, Gig-Ethernet	Industry	China	2003	1040.00	448	2150.40	195000		Gigabit Ethernet
224	Applera/Celera Genomics	IBM	pSeries 690 Turbo 1.3GHz	Industry	United States	2002	1038.00	384	1996.80	245000		SP Switch
225	HLRN at Universitaet Hannover / RRZN	IBM	pSeries 690 Turbo 1.3GHz	Academic	Germany	2002	1038.00	384	1996.80	245000		SP Switch
226	HLRN at ZIB/Konrad Zuse-Zentrum fuer Informationstechnik	IBM	pSeries 690 Turbo 1.3GHz	Academic	Germany	2002	1038.00	384	1996.80	245000		SP Switch
227	Lawrence Livermore National Laboratory	Promicro/Quadrics	Pentium4 Xeon 2.8 GHz Cluster - Quadrics	Research	United States	2003	1036.00	256	1433.60	170000	30600	Quadrics
228	Lawrence Livermore National Laboratory	Promicro/Quadrics	Pentium4 Xeon 2.8 GHz Cluster - Quadrics	Research	United States	2003	1036.00	256	1433.60	170000	30600	Quadrics
229	Bull	Bull SA	NovaScale5160, Itanium2 1.3 GHz, Quadrics	Industry	France	2004	1027.00	256	1331.20	245760	38912	Quadrics
230	University of Utah	Angstrom Microsystems	Arches AMD 1.4 GHz, Myrinet	Academic	United States	2004	1017.00	500	1400.00	232000	30700	Myrinet
231	Bio Informatics Institute	Hewlett-Packard	Cluster Platform 3000 DL360G3, Xeon 3.2 GHz, Myrin	Research	Singapore	2004	1015.50	256	1638.40			Myrinet
232	Siemens	Hewlett-Packard	Cluster Platform 3000 DL360G3, Xeon 3.2 GHz, Myrin	Industry	Germany	2004	1015.50	256	1638.40			Myrinet
233	University of Georgia	Hewlett-Packard	Cluster Platform 3000 DL140, Pentium4 Xeon 3.2 GHz	Academic	United States	2004	1015.50	256	1638.40			Myrinet
234	Life Science (A)	IBM	BladeCenter Xeon 2.8 GHz, Gig-Ethernet	Industry	United Kingdom	2004	1014.89	304	1702.40			Gigabit Ethernet
235	Seoul National University	Self-made	Pegasus P4 Xeon Cluster 2.2/2.4/2.8 GHz - Giganet	Academic	Korea, South	2002	1011.00	400	1843.00	257912		Giganet
236	Financial Services Company (E)	IBM	BladeCenter Cluster Xeon 2.4 GHz, Gig-Ethernet	Industry	United States	2003	1009.17	440	2112.00			Gigabit Ethernet
237	Argonne National Laboratory	Linux Networx	LCRC Xeon 2.4 GHz - Myrinet	Research	United States	2002	1007.00	361	1732.80	208000	35000	Myrinet
238	Japan Atomic Energy Research Institute	Hewlett-Packard	AlphaServer SC40, 833 MHz	Research	Japan	2002	1007.00	812	1352.80	252700	39954	Quadrics
239	AGIP	Hewlett-Packard	Cluster Platform 3000 DL360G3, Xeon 3.2 GHz, Myrin	Industry	Italy	2004	1004.00	260	1664.00			Myrinet
240	Boeing	Linux Networx	Pentium4 Xeon 2.8 GHz, Myrinet	Industry	United States	2004	1004.00	256	1433.60	245245		Myrinet
241	Boeing	Linux Networx	Pentium4 Xeon 2.8 GHz, Myrinet	Industry	United States	2004	1004.00	256	1433.60	245245		Myrinet
242	Commissariat a l'Energie Atomique (CEA)	Hewlett-Packard	AlphaServer SC45, 1.25 GHz	Research	France	2003	1004.00	512	1280.00	159700	34560	Quadrics
243	National Center for High Performance Computing	Self-made	Pentium4 Xeon, 2.8 GHz, Gig Ethernet	Academic	Taiwan	2003	1001.54	300	1680.00			Gigabit Ethernet
244	Sandia National Laboratories	Self-made	CPlant/Ross Cluster	Research	United States	2002	996.90	1800	1782.50	310000	56000	Myrinet
245	PETROBRAS	Hewlett-Packard	Cluster Platform 3000 DL140, Pentium4 Xeon 3.2 GHz	Industry	Brazil	2004	992.00	250	1600.00			Myrinet
246	PETROBRAS	Hewlett-Packard	Cluster Platform 3000 DL140, Pentium4 Xeon 3.2 GHz	Industry	Brazil	2004	992.00	250	1600.00			Myrinet
247	PETROBRAS	Hewlett-Packard	Cluster Platform 3000 DL140, Pentium4 Xeon 3.2 GHz	Industry	Brazil	2004	992.00	250	1600.00			Myrinet
248	PETROBRAS	Hewlett-Packard	Cluster Platform 3000 DL140, Pentium4 Xeon 3.2 GHz	Industry	Brazil	2004	992.00	250	1600.00			Myrinet
249	Boeing	Linux Networx	Pentium Xeon 2.66 GHz, Myrinet	Industry	United States	2004	987.90	256	1361.90	205576		Myrinet
250	Automotive Manufacturer (F)	IBM	eServer Opteron 2.0 GHZ, Gig-E	Industry	Italy	2004	987.10	512	2048.00			Gigabit Ethernet
251	NEC Fuchu Plant	NEC	SX-6/128M16	Vendor	Japan	2002	982.00	128	1024.00	204800	12800	Crossbar
252	Digital Media Company (B)	Hewlett-Packard	Cluster Platform 3000 DL360G3 Xeon 3.06 GHz, Myrin	Industry	United States	2004	971.00	256	1566.70			Myrinet
253	Digital Media Company (B)	Hewlett-Packard	Cluster Platform 3000 DL140 Xeon 3.06 GHz, Myrinet	Industry	United States	2004	971.00	256	1566.70			Myrinet
254	Digital Media Company (B)	Hewlett-Packard	Cluster Platform 3000 DL140 Xeon 3.06 GHz, Myrinet	Industry	United States	2004	971.00	256	1566.70			Myrinet
255	Digital Media Company (B)	Hewlett-Packard	Cluster Platform 3000 DL140 Xeon 3.06 GHz, Myrinet	Industry	United States	2004	971.00	256	1566.70			Myrinet
256	Itochu Techno-Science Corp.	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	Japan	2004	969.10	192	1152.00			Myrinet
257	Jeis Tokyo Shiten	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	Japan	2004	969.10	192	1152.00			Myrinet
258	Manufacturing Company (F)	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	Italy	2004	969.10	192	1152.00			Myrinet

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259	Nihon Synopsis	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	Japan	2004	969.10	192	1152.00			Myrinet
260	SBM Gates Arrow Com.	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	United States	2004	969.10	192	1152.00			Myrinet
261	Government	Hewlett-Packard	Cluster Platform 3000 DL360G3, Xeon 3.2 GHz, Myrin	Classified	United States	2004	967.00	240	1536.00			Myrinet
262	State Farm	IBM	eServer pSeries 655 (1.7 GHz Power4+, GigE)	Industry	United States	2004	962.35	320	2176.00			Gigabit Ethernet
263	Geoscience (C)	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	India	2004	961.28	256	1566.72			Gigabit Ethernet
264	Institute of Mathematical Sciences, C.I.T Campus	IMSc-Netweb-Summation	Pentium Xeon Cluster 2.4 GHz - SCI 3D	Research	India	2004	959.00	288	1382.40	183000	33050	SCI
265	IBM Benchmark and Enablement Center	IBM	eServer pSeries 690 (1.7 GHz Power4+, GigE)	Vendor	United States	2004	949.33	256	1740.80			Gigabit Ethernet
266	Compagnie Generale de Geophysique (CGG)	IBM	xSeries Cluster Xeon 2.4 GHz - Myrinet	Industry	United Kingdom	2003	949.01	320	1536.00			Myrinet
267	Geoscience (B)	IBM	BladeCenter Xeon 3.06 GHz, Gig-Ethernet	Research	India	2004	946.26	252	1542.24			Gigabit Ethernet
268	Geoscience (B)	IBM	BladeCenter Xeon 3.06 GHz, Gig-Ethernet	Research	India	2004	946.26	252	1542.24			Gigabit Ethernet
269	Rice University	Hewlett-Packard	Cluster Platform 6000 zx6000 Itanium2 1.5 GHz, Myr	Academic	United States	2004	943.00	196	1176.00			Myrinet
270	PETROBRAS	Sun Microsystems	Fire V60 Cluster, 2.8 GHz, Gig E	Industry	Brazil	2004	939.64	340	1904.00			Gigabit Ethernet
271	Government	Cray Inc.	Cray X1	Classified	United States	2004	937.00	80	1024.00	194560	21376	Crossbar
272	University of Queensland	SGI	SGI Altix 1.3 GHz	Academic	Australia	2003	936.84	208	1081.60			NUMAlink
273	Ohio Supercomputer Center	Advanced Computing/Voltaire	P4 Xeon 2.4 GHz, Infiniband	Academic	United States	2004	933.10	256	1228.80	140000		Infiniband
274	Geoscience (C)	IBM	xSeries Xeon 3.06 GHz - Gig-E	Industry	United Kingdom	2004	931.24	248	1517.76			Gigabit Ethernet
275	UCSD/San Diego Supercomputer Center	IBM	SP Power3 375 MHz 8 way	Academic	United States	2000	929.00	1152	1728.00	220000	62000	SP Switch
276	United Kingdom Meteorological Office	NEC	SX-6/120M15	Research	United Kingdom	2003	927.60	120	960.00	204000	19440	Crossbar
277	United Kingdom Meteorological Office	NEC	SX-6/120M15	Research	United Kingdom	2003	927.60	120	960.00	204000	19440	Crossbar
278	AMD Developer Center	Appro International	Opteron 2.0 GHz, Infiniband	Industry	United States	2004	922.80	288	1152.00	200000	32500	Infiniband
279	Pennsylvania State University	Dell	PowerEdge 1750, Pentium4 Xeon 3.06 GHz, GigE	Academic	United States	2003	922.10	256	1566.72			Gigabit Ethernet
280	Chevron	Hewlett-Packard	Cluster Platform 3000 DL360G3, Xeon 3.2 GHz, Myrin	Industry	United States	2004	919.00	228	1459.20			Myrinet
281	High Energy Accelerator Research Organization /KEK	Hitachi	SR8000-F1/100	Research	Japan	2000	917.00	100	1200.00	115000	15000	Crossbar
282	Scripps Institution of Oceanography	IBM	xSeries Xeon 2.8 GHz, NPACI-ROCKS, Myrinet	Research	United States	2004	916.50	256	1433.60	150000	25000	Myrinet
283	Government	Hewlett-Packard	Cluster Platform 3000 DL380G3, Pentium4 Xeon 2.8 G	Classified	United States	2003	902.00	260	1456.00			Myrinet
284	Bio Informatics Institute	Hewlett-Packard	Cluster Platform DL360G3, Pentium4 Xeon 2.8 GHz, M	Industry	Singapore	2003	899.30	256	1433.60			Myrinet
285	Boeing	Hewlett-Packard	Cluster Platform 3000 DL380G3, Pentium4 Xeon 2.8 G	Industry	United States	2003	899.30	256	1433.60			Myrinet
286	Hewlett-Packard	Hewlett-Packard	Cluster Platform DL360G3, Pentium4 Xeon 2.8 GHz, M	Vendor	United States	2003	899.30	256	1433.60			Myrinet
287	Boston University School of Medicine	IBM	BladeCenter Xeon 2.8 GHz, Gig-Ethernet	Academic	United States	2004	894.80	268	1500.80			Gigabit Ethernet
288	Universitaet Aachen/RWTH	Sun Microsystems	Fire 15k/6800 Cluster	Academic	Germany	2003	891.40	672	1209.60			Fireplane
289	VW (Volkswagen AG)	NEC	Opteron 2.0 GHz, GigE	Industry	Germany	2004	891.00	360	1440.00	260000		Gigabit Ethernet
290	Maui High-Performance Computing Center (MHPCC)	IBM	SP Power3 375 MHz 16 way	Research	United States	2001	891.00	812	1218.00			SP Switch
291	University of Nebraska	Atipa Technology	Prairiefire Opteron 2.2 GHz, Myrinet	Academic	United States	2004	888.50	256	1126.40	245600	30000	Myrinet
292	Maui High-Performance Computing Center (MHPCC)	IBM	pSeries 690 Turbo 1.3GHz	Research	United States	2002	887.30	320	1664.00			SP Switch
293	Sandia National Laboratories	Dell	PowerEdge 1750, Pentium4 Xeon 3.06 GHz, Infiniband	Research	United States	2004	882.00	192	1175.00	150000		Infiniband
294	Pennsylvania State University	Dell	PowerEdge 2650 Cluster P4 Xeon 2.4 GHz - Quadrics	Academic	United States	2003	877.90	256	1228.80	160000		Quadrics
295	University of Tokyo	Hitachi	SR8000/128	Academic	Japan	1999	873.00	128	1024.00	120000	16000	Crossbar
296	Pennsylvania State University	Sun Microsystems	Fire V60 Cluster, 2.8 GHz, Gig Ethernet	Academic	United States	2003	872.27	320	1792.00			Gigabit Ethernet
297	ERDC MSRC	Hewlett-Packard	AlphaServer SC45, 1 GHz	Research	United States	2002	862.20	512	1024.00	205000	26000	Quadrics
298	Hewlett-Packard	Hewlett-Packard	AlphaServer SC45, 1 GHz	Vendor	United States	2002	862.20	512	1024.00	205000	26000	Quadrics
299	Wright-Patterson Air Force Base/DoD ASC	Hewlett-Packard	AlphaServer SC45, 1 GHz	Research	United States	2002	862.20	512	1024.00	205000	26000	Quadrics
300	Compagnie Generale de Geophysique (CGG)	IBM	BladeCenter Cluster, Xeon 2.8 GHz, Gig-Ethernet	Industry	Indonesia	2003	854.77	256	1433.60			Gigabit Ethernet
301	Ford Motor Company	IBM	BladeCenter Cluster, Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2004	854.77	256	1433.60			Gigabit Ethernet

Rank	Site	Manufacturer	Computer	Inst. type	Country	Year	Rmax	Processors	Rpeak	Nmax	Nhalf	Interconnect
302	IBM - Deep Computing Capacity on Demand Center	IBM	xSeries Xeon 2.8 GHz, GigEthernet	Industry	United States	2003	854.77	256	1433.60			Gigabit Ethernet
303	IBM - Deep Computing Capacity on Demand Center	IBM	xSeries Xeon 2.8 GHz, GigEthernet	Industry	United States	2003	854.77	256	1433.60			Gigabit Ethernet
304	IBM - Deep Computing Capacity on Demand Center	IBM	xSeries Xeon 2.8 GHz, GigEthernet	Industry	United States	2003	854.77	256	1433.60			Gigabit Ethernet
305	IBM - Deep Computing Capacity on Demand Center	IBM	xSeries Xeon 2.8 GHz, GigEthernet	Industry	United States	2003	854.77	256	1433.60			Gigabit Ethernet
306	Lockheed Martin	IBM	xSeries Xeon 2.8 GHz, GigEthernet	Industry	United States	2003	854.77	256	1433.60			Gigabit Ethernet
307	Petroleum Company (A)	IBM	xSeries Xeon 2.8 GHz, GigEthernet	Industry	United States	2003	854.77	256	1433.60			Gigabit Ethernet
308	University of Hong Kong	IBM	xSeries Xeon 2.8 GHz, GigEthernet	Academic	Hong Kong	2003	854.77	256	1433.60			Gigabit Ethernet
309	NASA/Ames Research Center/NAS	SGI	ORIGIN 3000 600 MHz	Research	United States	2002	852.90	1024	1228.80	129024	31744	NUMAflex
310	Korea Telecom	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	Korea, South	2004	844.00	176	1056.00			Myrinet
311	Los Alamos National Laboratory	Linux Networx	Grendels P4 Cluster 2.4 GHz - Myrinet	Research	United States	2003	840.50	252	1209.60	175760	27768	Myrinet
312	Brigham Young University	IBM	xSeries Cluster Xeon 2.4 GHz - Myrinet	Academic	United States	2003	840.02	256	1228.80			Myrinet
313	South Australian Partnership for Advanced Computing (SAPAC)	IBM	xSeries Cluster Xeon 2.4 GHz - Myrinet	Academic	Australia	2003	840.02	256	1228.80			Myrinet
314	Petroleum Company (B)	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	United States	2003	838.93	392	1881.60			Gigabit Ethernet
315	Rutherford Appleton Laboratory	Streamline Computing	e-Science Cluster, Opteron 2.2 GHz, Myrinet	Research	United Kingdom	2004	836.30	256	1126.40			Myrinet
316	IBM Benchmark and Enablement Center	IBM	eServer pSeries 690 (1.7 GHz Power4+, GigE)	Vendor	United States	2004	830.67	224	1523.20			Gigabit Ethernet
317	Shenzhen University	Tsinghua University, ShenZhen University	DeepSuper-21C, P4 Xeon 3.06/2.8 GHz, Myrinet	Academic	China	2003	830.10	256	1500.16	117200	32300	Myrinet
318	HSBC Bank	IBM	eServer pSeries 655 (1.5 GHz Power4+, GigE)	Industry	United Kingdom	2004	830.00	256	1536.00			Gigabit Ethernet
319	HSBC Bank	IBM	pSeries 690 Turbo 1.3GHz GigEth	Industry	United Kingdom	2004	826.50	512	2662.40			Gigabit Ethernet
320	Australian Partnership for Advanced Computing (APAC)	Hewlett-Packard	AlphaServer SC45, 1 GHz	Academic	Australia	2002	825.50	508	1016.00	170000	26000	Quadrics
321	Universitaet Heidelberg - IWR	Megware	HELICS AMD 1.4 GHz - Myrinet	Academic	Germany	2002	825.00	512	1433.60	171000		Myrinet
322	IN2P3	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Research	France	2003	822.85	384	1843.20			Gigabit Ethernet
323	PDO	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	Oman	2003	822.85	384	1843.20			Gigabit Ethernet
324	Diversa	Hewlett-Packard	Cluster Platform 3000 DL140, Pentium4 Xeon 3.2 GHz	Industry	United States	2004	819.20	200	1280.00			Myrinet
325	Government	Hewlett-Packard	Cluster Platform 3000 DL360G3, Xeon 3.2 GHz, Myrin	Classified	United States	2004	819.20	200	1280.00			Myrinet
326	Government	Hewlett-Packard	Cluster Platform 3000 DL360G3, Xeon 3.2 GHz, Myrin	Classified	United States	2004	819.20	200	1280.00			Myrinet
327	Government	Cray Inc.	T3E900	Classified	United States	1997	815.00	1324	1191.60	134400	26880	Cray Interconnect
328	Sony Data	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	United Kingdom	2003	806.78	376	1804.80			Gigabit Ethernet
329	Galileo International LLC	IBM	xSeries Xeon 2.8 GHz, GigEthernet	Industry	United States	2003	801.39	240	1344.00			Gigabit Ethernet
330	Statoil	Hewlett-Packard	Cluster Platform DL360G3, Pentium4 Xeon 2.8 GHz, M	Industry	Norway	2004	800.80	220	1232.00			Myrinet
331	Charles Schwab	IBM	SP Power3 375 MHz	Industry	United States	2000	795.00	768	1152.00			SP Switch
332	Rutgers University, Department of Physics & Astronomy	Self-made	AMD AthlonMP Cluster 1.65 GHz	Academic	United States	2003	794.00	512	1690.00	223000	37000	Fast Ethernet
333	Institute for Materials Research/Tohoku University	Hitachi	SR8000-G1/64	Academic	Japan	2001	790.70	64	921.60	110000	8504	Crossbar
334	GSIC Center, Tokyo Institute of Technology	Self-made	Presto III Athlon 1.6 GHz	Academic	Japan	2002	788.80	486	1555.20	121500		Myrinet
335	Semiconductor Company (C)	IBM	xSeries Xeon 2.8 GHz, Gig-Ethernet	Industry	United States	2004	788.05	236	1321.60			Gigabit Ethernet
336	Scalable Systems Group, Dell Computer	Dell	PowerEdge 2650, P4 Xeon 3.06/2.4 GHz, Myrinet	Vendor	United States	2003	787.10	252	1375.92	162400		Myrinet
337	Norsk Hydro	Hewlett-Packard	Cluster Platform DL360G3, Pentium4 Xeon 2.8 GHz, M	Industry	Norway	2004	785.80	216	1209.60			Myrinet
338	Consumer Industry	IBM	xSeries Xeon 2.8 GHz, GigEthernet	Industry	Germany	2003	781.38	234	1310.40			Gigabit Ethernet
339	W. Karmann GmbH	IBM	xSeries Xeon 2.8 GHz, GigEthernet	Industry	Germany	2003	781.38	234	1310.40			Gigabit Ethernet
340	Meaningful Machines	IBM	BladeCenter Xeon 3.06 GHz, Gig-Ethernet	Industry	United States	2004	781.04	208	1272.96			Gigabit Ethernet
341	NCAR (National Center for Atmospheric Research)	IBM	eServer Opteron 2.2 GHz. Myrinet	Research	United States	2004	769.38	256	1126.40			Myrinet
342	Media & Entertainment (C)	IBM	pSeries 690 Turbo 1.3GHz GigEth	Industry	United States	2004	767.00	448	2329.60			Gigabit Ethernet
343	Ohio Supercomputer Center	Hewlett-Packard	Cluster Platform 6000 zx6000 Itanium2 900 MHz, Myr	Academic	United States	2003	761.90	256	921.60	228000	50000	Myrinet
344	Los Alamos National Laboratory	Self-made	Space Simulator, P4 2.53 GHz - GigEth	Research	United States	2002	757.10	288	1457.00	180000	44000	Gigabit Ethernet

Rank	Site	Manufacturer	Computer	Inst. type	Country	Year	Rmax	Processors	Rpeak	Nmax	Nhalf	Interconnect
345	Magirus International	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Germany	2004	756.00	512	1792.00			Myrinet
346	Telkom LTD	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United Kingdom	2004	756.00	480	1680.00			Myrinet
347	Youngwoo	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Korea, South	2004	756.00	480	1680.00			Myrinet
348	Amdocs	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United States	2004	756.00	384	1344.00			Myrinet
349	Amdocs	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United States	2004	756.00	384	1344.00			Myrinet
350	Centrica Plc	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United Kingdom	2004	756.00	384	1344.00			Myrinet
351	Deutsche Telekom AG	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Germany	2004	756.00	384	1344.00			Myrinet
352	EDS	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United Kingdom	2004	756.00	384	1344.00			Myrinet
353	Government	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Classified	United States	2004	756.00	384	1344.00			Myrinet
354	Morse Computer	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United Kingdom	2004	756.00	384	1344.00			Myrinet
355	Omnitel Vodafone	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Italy	2004	756.00	384	1344.00			Myrinet
356	OpenPSL Ltd.	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United Kingdom	2004	756.00	384	1344.00			Myrinet
357	OpenPSL Ltd.	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United Kingdom	2004	756.00	384	1344.00			Myrinet
358	PCS Trading	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	India	2004	756.00	384	1344.00			Myrinet
359	Telecom Italia	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Italy	2004	756.00	384	1344.00			Myrinet
360	Telecom Italia	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Italy	2004	756.00	384	1344.00			Myrinet
361	Telecom Italia	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Italy	2004	756.00	384	1344.00			Myrinet
362	Telecom Italia	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Italy	2004	756.00	384	1344.00			Myrinet
363	Telecom Italia	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Italy	2004	756.00	384	1344.00			Myrinet
364	Telecom Italia	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Italy	2004	756.00	384	1344.00			Myrinet
365	Telecom Italia	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Italy	2004	756.00	384	1344.00			Myrinet
366	Telecommunication Company	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Poland	2004	756.00	384	1344.00			Myrinet
367	Telkom SA	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	South Africa	2004	756.00	384	1344.00			Myrinet
368	Vodafone (KK) Chuo	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Japan	2004	756.00	384	1344.00			Myrinet
369	Vodafone (KK) Chuo	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Japan	2004	756.00	384	1344.00			Myrinet
370	EDS/ Adam Opel AG	IBM	pSeries 690 Turbo 1.3GHz	Industry	Germany	2003	755.00	264	1372.80			SP Switch
371	Automotive Manufacturer #1	IBM	eServer pSeries 655 (1.5 GHz Power4+, GigE)	Industry	Japan	2004	750.00	232	1392.00			Gigabit Ethernet
372	ShanDong High Performance Computing Center	Langchao	TS10000, P4 Xeon 2.8 GHz, Infiniband4x	Academic	China	2004	749.00	192	1075.20	141000	35000	Infiniband
373	AVNET Computer	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United States	2004	744.00	384	1344.00			Myrinet
374	Amdocs Software Systems	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United Kingdom	2004	744.00	384	1344.00			Myrinet
375	BellSouth	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United States	2004	744.00	384	1344.00			Myrinet
376	CIE Gegetel SI	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	France	2004	744.00	384	1344.00			Myrinet
377	Eurotel Praha	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Czech Republic	2004	744.00	384	1344.00			Myrinet
378	Government	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Classified	France	2004	744.00	384	1344.00			Myrinet
379	Hitachi	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Japan	2004	744.00	384	1344.00			Myrinet
380	Hutchison H3G	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Italy	2004	744.00	384	1344.00			Myrinet
381	NEC Computer Techno (KK)	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Japan	2004	744.00	384	1344.00			Myrinet
382	Altria Group - Philip Morris Management	IBM	pSeries 690 Turbo 1.3GHz	Industry	United States	2004	736.60	256	1331.20	285000	25000	SP Switch
383	Altria Group - Philip Morris Management	IBM	pSeries 690 Turbo 1.3GHz	Industry	United States	2004	736.60	256	1331.20	285000	25000	SP Switch
384	National Center for High Performance Computing	IBM	pSeries 690 Turbo 1.3GHz	Academic	Taiwan	2002	736.60	256	1331.20	285000	25000	SP Switch
385	Swiss Scientific Computing Center (CSCS)	IBM	pSeries 690 Turbo 1.3GHz	Research	Switzerland	2002	736.60	256	1331.20	285000	25000	SP Switch
386	UCSD/San Diego Supercomputer Center	IBM	pSeries 690 Turbo 1.3 GHz	Academic	United States	2004	736.60	256	1331.20			SP Switch
387	Universite Blaise Pascal	IBM	BladeCenter Xeon 3.06 GHz, Gig-Ethernet	Academic	France	2004	735.98	196	1199.52			Gigabit Ethernet

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388	LASG/Institute of Atmospheric Physics, CAS	lenovo	DeepComp 1800 - P4 Xeon 2.4 GHz - Myrinet	Academic	China	2002	735.80	256	1228.00	114920	28000	Myrinet
389	Air Force Weather Agency	IBM	eServer pSeries 655 (1.5 GHz Power4+)	Research	United States	2004	735.18	192	1152.00			SP Switch
390	Fleet Numerical Meteorology and Oceanography Center	IBM	eServer pSeries 655 (1.5 GHz Power4+)	Research	United States	2004	735.18	192	1152.00			SP Switch
391	Joint Supercomputer Center	Self-made	MVS1000M EV67 667 MHz	Academic	Russia	2002	734.60	768	1024.00	270000	30000	Myrinet
392	Boeing	Hewlett-Packard	Cluster Platform 3000 DL380G3, Pentium4 Xeon 2.8 G	Industry	United States	2003	731.10	192	1075.20			Myrinet
393	University of Tsukuba	Fujitsu	VPP5000/80	Research	Japan	2001	730.00	80	768.00	273600	15360	Crossbar
394	Total Exporation Production	SGI	Altix 3700 900 MHz	Industry	France	2003	727.40	256	921.60			NUMAlink
395	Amt fuer Geoinformationswesen der Bundeswehr	IBM	eServer pSeries 655 (1.1 GHz Power4)	Government	Germany	2004	726.30	256	1126.00	300000	20000	SP Switch
396	PIK	IBM	eServer pSeries 655 (1.1 GHz Power4)	Research	Germany	2004	726.30	256	1126.00	300000	20000	SP Switch
397	Oak Ridge National Laboratory	IBM	SP Power3 375 MHz	Research	United States	2000	723.00	704	1056.00	187000	37500	SP Switch
398	Joint Supercomputer Center	IBM	MVS-5000BM, eServer BladeCenter JS20 (PowerPC970 1	Academic	Russia	2004	722.10	168	1075.20	200000	33000	Myrinet
399	Compagnie Generale de Geophysique (CGG)	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	Malaysia	2003	718.38	332	1593.60			Gigabit Ethernet
400	Digital China Ltd.	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	China	2004	713.00	416	1456.00			Myrinet
401	Magirus International	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Germany	2004	713.00	416	1456.00			Myrinet
402	Retailer A	IBM	eServer pSeries 690 (1.7 GHz Power4+, GigE)	Industry	Australia	2004	712.00	192	1305.60			Gigabit Ethernet
403	PETROBRAS	Sun Microsystems	Fire V60 Cluster, 2.8 GHz, Gig E	Industry	Brazil	2004	710.59	272	1523.20			Gigabit Ethernet
404	IBM - Deep Computing Capacity on Demand Center	IBM	pSeries 690 Turbo 1.3GHz GigEth	Industry	France	2004	708.00	384	1996.80			Gigabit Ethernet
405	NCSA	IBM	pSeries 690 Turbo 1.3GHz GigEth	Academic	United States	2003	708.00	384	1996.80			Gigabit Ethernet
406	Boeing	Cray Inc.	Cray X1	Industry	United States	2004	706.35	60	768.00	168960	18432	Crossbar
407	ERDC MSRC	Cray Inc.	Cray X1	Research	United States	2003	706.35	60	768.00	168960	18432	Crossbar
408	Government	Cray Inc.	Cray X1	Classified	United States	2003	706.35	60	768.00	168960	18432	Crossbar
409	Max-Planck-Gesellschaft MPI/Albert-Einstein-Institut	Megware	P4 Xeon 3.06 & 2.66 GHz, GigE	Research	Germany	2004	706.00	256	1461.00	160000		Gigabit Ethernet
410	Texas Advanced Computing Center/Univ. of Texas	IBM	pSeries p690/p655 1.3GHz	Academic	United States	2002	704.80	224	1164.80			SP Switch
411	HWW/Universitaet Stuttgart	Cray Inc.	Cray Opteron 2 GHz, Myrinet	Industry	Germany	2004	703.30	250	1000.00			Myrinet
412	Vanderbilt University	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Academic	United States	2003	702.30	324	1555.20			Gigabit Ethernet
413	UCSD/Cal-IT^2/SDSC	Sun Microsystems	Rocks V60x Cluster 2.8 GHz, Gig Ethernet	Research	United States	2003	699.00	256	1433.60	114400	10000	Gigabit Ethernet
414	Cambridge University - COSMOS	SGI	SGI Altix 1.3 GHz	Academic	United Kingdom	2003	697.48	152	790.40			NUMAlink
415	Societe Generale	Hewlett-Packard	Cluster Platform 3000 DL360G3, Xeon 3.2 GHz, Myrin	Industry	France	2004	696.00	160	1024.00			Myrinet
416	Japan Meteorological Agency	Hitachi	SR8000-E1/80	Research	Japan	2000	691.30	80	768.00	120000	9408	Crossbar
417	AT&T Wireless	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United States	2004	691.00	352	1232.00			Myrinet
418	Bell Canada	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Canada	2004	691.00	352	1232.00			Myrinet
419	Cingular Wireless	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United States	2004	691.00	352	1232.00			Myrinet
420	Deutsche Telekom AG	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Germany	2004	691.00	352	1232.00			Myrinet
421	Lockheed Martin	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United States	2004	691.00	352	1232.00			Myrinet
422	Omnitel Pronto Italia	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Italy	2004	691.00	352	1232.00			Myrinet
423	Triumph Technology	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Taiwan	2004	691.00	352	1232.00			Myrinet
424	Vodafone	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Spain	2004	691.00	352	1232.00			Myrinet
425	Vodafone (KK) Chuo	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Japan	2004	691.00	352	1232.00			Myrinet
426	Zungwon	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Korea, South	2004	691.00	352	1232.00			Myrinet
427	Zungwon	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Korea, South	2004	691.00	352	1232.00			Myrinet
428	Los Alamos National Laboratory/ACL	SGI	ORIGIN 2000 250 MHz	Research	United States	1999	690.90	2048	1024.00	229248	80640	Crossbar
429	ERDC MSRC	Hewlett-Packard	AlphaServer SC40, 833 MHz	Research	United States	2002	690.90	512	853.00	185000	40000	Quadrics
430	AMD Developer Center	Verari Systems	Opteron 1.8 GHz, Myrinet	Industry	United States	2003	687.10	256	921.60	147000	24200	Myrinet

Rank	Site	Manufacturer	Computer	Inst. type	Country	Year	Rmax	Processors	Rpeak	Nmax	Nhalf	Interconnect
431	Hewlett Packard	Hewlett-Packard	Cluster Platform 6000 rx2600 Itanium2 1.5 GHz, Inf	Vendor	Germany	2004	683.00	128	768.00			Infiniband
432	Hewlett-Packard	Hewlett-Packard	Cluster Platform 6000 rx2600 Itanium2 1.5 GHz, Inf	Vendor	United States	2004	683.00	128	768.00			Infiniband
433	American Museum of Natural History	Linux Labs	Demeter - P4 Xeon 2.6 Ghz - Myrinet	Research	United States	2003	680.30	240	1248.00	163750	25400	Myrinet
434	Colsa	IBM	pSeries 690 Turbo 1.3GHz	Industry	United States	2002	680.00	240	1248.00			SP Switch
435	US Department of the Treasury	IBM	pSeries 690 Turbo 1.3GHz	Government	United States	2002	680.00	240	1248.00			SP Switch
436	Naval Research Laboratory (NRL)	Appro International	Opteron 1.8 GHz, Myrinet	Research	United States	2004	676.40	256	921.60	174000	33000	Myrinet
437	NVIDIA Corporation	Hewlett-Packard	Cluster Platform 3000 DL140, Pentium4 Xeon 3.2 GHz	Industry	United States	2004	674.00	155	992.00			Myrinet
438	Fermi National Accelerator Laboratory	Self-made	P4 Xeon Cluster 2.4 GHz - Myrinet	Research	United States	2003	671.30	256	1228.80	100000	20000	Myrinet
439	NASA/Ames Research Center/NAS	SGI	SGI Altix 1.5 GHz	Research	United States	2004	668.30	128	768.00	224000		NUMAlink
440	Pacific Northwest National Laboratory	SGI	SGI Altix 1.5 GHz	Research	United States	2003	668.30	128	768.00	224000		NUMAlink
441	Silicon Graphics	SGI	SGI Altix 1.5 GHz	Vendor	United States	2003	668.30	128	768.00	224000		NUMAlink
442	University of Minnesota/Supercomputing Institute	SGI	SGI Altix 1.5 GHz	Academic	United States	2004	668.30	128	768.00	224000		NUMAlink
443	University of Montreal	SGI	SGI Altix 1.5 GHz	Academic	Canada	2004	668.30	128	768.00	224000		NUMAlink
444	Victorian Partnership for Advanced Computing (VPAC)	IBM	xSeries Cluster Xeon 2.8 GHz - Myrinet	Academic	Australia	2003	661.57	192	1075.20			Myrinet
445	Petroleum Company (G)	Sun Microsystems	Fire V60 Cluster, 3.06 GHz, Gig Ethernet	Industry	Saudia Arabia	2003	656.70	256	1566.72			Gigabit Ethernet
446	Petroleum Company (G)	Sun Microsystems	Fire V60 Cluster, 3.06 GHz, Gig Ethernet	Industry	Saudia Arabia	2003	656.70	256	1566.72			Gigabit Ethernet
447	Petroleum Company (G)	Sun Microsystems	Fire V60 Cluster, 3.06 GHz, Myrinet	Industry	Saudia Arabia	2003	656.70	256	1566.72			Myrinet
448	Petroleum Company (G)	Sun Microsystems	Fire V60 Cluster, 3.06 GHz, Myrinet	Industry	Saudia Arabia	2003	656.70	256	1566.72			Myrinet
449	Petroleum Company (G)	Sun Microsystems	Fire V60 Cluster, 3.06 GHz, Gig Ethernet	Industry	Saudia Arabia	2003	656.70	256	1566.72			Gigabit Ethernet
450	Petroleum Company (G)	Sun Microsystems	Fire V60 Cluster, 3.06 GHz, Myrinet	Industry	Saudia Arabia	2003	656.70	256	1566.72			Myrinet
451	Petroleum Company (G)	Sun Microsystems	Fire V60 Cluster, 3.06 GHz, Myrinet	Industry	Saudia Arabia	2003	656.70	256	1566.72			Myrinet
452	Sun	Sun Microsystems	Fire V60 Cluster, Myrinet	Vendor	United States	2003	656.70	256	1433.60			Myrinet
453	University of Delaware	Sun Microsystems	Fire V60 Cluster, Myrinet	Academic	United States	2003	656.70	256	1433.60			Myrinet
454	University of Queensland	Sun Microsystems	Fire V60 Cluster, Gig Ethernet	Academic	Australia	2003	656.70	256	1433.60			Gigabit Ethernet
455	Cenaero	ClusterVision	P4 Xeon 3.06 GHz, Myrinet	Research	Belgium	2004	655.20	170	1040.40	120000	19000	Myrinet
456	Fraunhofer Institut, Ernst-Mach Institute	IBM	xSeries Cluster Xeon 2.0 GHz - Myrinet	Research	Germany	2003	654.70	256	1024.00	159000		Myrinet
457	University of Southampton	IBM	eServer Opteron 2.2 GHZ, Gig-E	Academic	United Kingdom	2004	654.10	330	1452.00			Gigabit Ethernet
458	CBRC - Tsukuba Advanced Computing Center - TACC/AIST	NEC	Magi Cluster PIII 933 MHz	Research	Japan	2001	654.00	1040	970.00	217600	29000	Myrinet
459	Financial Services Company (G)	IBM	eServer Opteron 2.0 GHZ, Gig-E	Industry	United States	2004	651.40	900	3600.00			Gigabit Ethernet
460	Government	IBM	eServer Opteron 2.0 GHZ, Gig-E	Classified	United States	2004	651.40	480	1920.00			Gigabit Ethernet
461	Government	IBM	eServer Opteron 2.0 GHZ, Gig-E	Classified	United States	2004	651.40	480	1920.00			Gigabit Ethernet
462	Government	IBM	eServer Opteron 2.0 GHZ, Gig-E	Classified	United States	2004	651.40	480	1920.00			Gigabit Ethernet
463	Government	IBM	eServer Opteron 2.0 GHZ, Gig-E	Classified	United States	2004	651.40	480	1920.00			Gigabit Ethernet
464	University of Siegen	IBM	eServer Opteron 2.0 GHZ, Gig-E	Academic	Germany	2004	651.40	256	1024.00			Gigabit Ethernet
465	ISA Technologies	IBM	eServer Opteron 2.0 GHZ, Gig-E	Industry	Australia	2004	651.40	240	960.00	166000	43200	Gigabit Ethernet
466	HSBC Bank	IBM	pSeries 690 Turbo 1.5 Ghz GigEth	Industry	United Kingdom	2004	651.20	256	1536.00			Gigabit Ethernet
467	BMW AG	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Germany	2004	651.00	320	1120.00			Myrinet
468	Telkom SA	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	South Africa	2004	651.00	320	1120.00			Myrinet
469	Boeing - Rocketdyne Power and Propulsion	Dell	PowerEdge 2650 Cluster P4 Xeon 2.4 GHz - GigE	Industry	United States	2003	650.00	264	1267.20			Gigabit Ethernet
470	Financial Service Provider	IBM	pSeries 690 Turbo 1.3 GHz GigEth	Industry	United States	2004	649.28	320	1664.00			Gigabit Ethernet
471	Algol Products	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	Italy	2004	642.90	128	768.00			Myrinet
472	BMW AG	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	Germany	2004	642.90	128	768.00			Myrinet
473	BMW AG	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	Germany	2003	642.90	128	768.00			Myrinet

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474	Carrefour	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	Spain	2004	642.90	128	768.00			Myrinet
475	Centro de Supercomputación de Galicia	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Academic	Spain	2003	642.90	128	768.00			Myrinet
476	Columbia Movil	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	Colombia	2004	642.90	128	768.00			Myrinet
477	Hewlett-Packard	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Vendor	United States	2004	642.90	128	768.00			Myrinet
478	Hewlett-Packard	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Vendor	United States	2004	642.90	128	768.00			Myrinet
479	Hewlett-Packard	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Vendor	United States	2004	642.90	128	768.00			Myrinet
480	Hewlett-Packard	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Vendor	United States	2003	642.90	128	768.00			Myrinet
481	Hewlett-Packard	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Vendor	United States	2004	642.90	128	768.00			Myrinet
482	Itellium Systems	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	Germany	2004	642.90	128	768.00			Myrinet
483	NEC Computer Techno (KK)	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	Japan	2004	642.90	128	768.00			Myrinet
484	National Center for High Performance Computing	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Academic	Taiwan	2003	642.90	128	768.00			Myrinet
485	Societa Interbancaria per l'Automazione	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	Italy	2003	642.90	128	768.00			Myrinet
486	Tech Pacific Exports C	Hewlett-Packard	Integrity Superdome, 1.5 GHz, HPlex	Industry	India	2004	642.90	128	768.00			Myrinet
487	University of Gdansk, CI Task	Optimus	Itanium2 1.3 GHz, Gig Ethernet	Academic	Poland	2003	641.60	256	1331.20	164000		Gigabit Ethernet
488	Amdocs	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United States	2004	638.00	320	1120.00			Myrinet
489	Citibank	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Singapore	2004	638.00	320	1120.00			Myrinet
490	EDS	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	United States	2004	638.00	320	1120.00			Myrinet
491	Government	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Classified	United Kingdom	2004	638.00	320	1120.00			Myrinet
492	Huapu Information Technology	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	China	2004	638.00	320	1120.00			Myrinet
493	Renault	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	France	2004	638.00	320	1120.00			Myrinet
494	Samsung SDS	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Korea, South	2004	638.00	320	1120.00			Myrinet
495	Vodafone (KK) Chuo	Hewlett-Packard	SuperDome 875 MHz/HyperPlex	Industry	Japan	2004	638.00	320	1120.00			Myrinet
496	Government	Hewlett-Packard	Cluster Platform 6000 rx2600 Itanium2 1.5 GHz, Qua	Classified	United States	2004	637.00	128	768.00	144000	27000	Quadrics
497	Hewlett-Packard	Hewlett-Packard	Cluster Platform 6000 rx2600 Itanium2 1.5 GHz, Qua	Vendor	United States	2003	637.00	128	768.00	144000	27000	Quadrics
498	Oxy Petroleum	Hewlett-Packard	Cluster Platform 6000 zx6000 Itanium2 1.5 GHz	Industry	Qatar	2004	637.00	128	768.00			Fast Ethernet
499	E*Trade	IBM	xSeries Cluster Xeon 2.4 GHz - Gig-E	Industry	United States	2003	633.99	290	1392.00			Gigabit Ethernet
500	Retailer B	IBM	eServer pSeries 655 (1.5 GHz Power4+, GigE)	Industry	United States	2004	624.26	184	1104.00			Gigabit Ethernet