



SPEC® MPIM2007 Result

Copyright 2006-2010 Standard Performance Evaluation Corporation

IBM

SPECmpiM_peak2007 = Not Run

iDP (Intel Xeon L5420, 2.50 GHz)

SPECmpiM_base2007 = NC

MPI2007 license: 45

Test sponsor: Indiana University

Tested by: Scott Teige

Test date: Apr-2009

Hardware Availability: Sep-2008

Software Availability: Jan-2009

- Ranks
- 104.milc
- 107.leslie3d
- 113.GemsFDTD
- 115.fds4
- 121.pop2
- 122.tachyon
- 126.lammps
- 127.wrf2
- 128.GAPgeofem
- 129.tera_tf
- 130.soc
- 132.zeusmp2
- 137.lu

Non-Compliant

Results Table

Benchmark	Base							Peak						
	Ranks	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Ranks	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
104.milc	256	NC	NC	NC	NC	NC	NC							
107.leslie3d	256	NC	NC	NC	NC	NC	NC							

Table continues on next page. Results appear in the order in which they were run. Bold underlined text indicates a median measurement.



SPEC MPIM2007 Result

Copyright 2006-2010 Standard Performance Evaluation Corporation

IBM

SPECmpiM_peak2007 = Not Run

iDP (Intel Xeon L5420, 2.50 GHz)

SPECmpiM_base2007 = NC

MPI2007 license: 45
Test sponsor: Indiana University
Tested by: Scott Teige

Test date: Apr-2009
Hardware Availability: Sep-2008
Software Availability: Jan-2009

Results Table (Continued)

Benchmark	Base								Peak							
	Ranks	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Ranks	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio		
113.GemsFDTD	256	NC	NC	NC	NC	NC	NC									
115.fds4	256	NC	NC	NC	NC	NC	NC									
121.pop2	256	NC	NC	NC	NC	NC	NC									
122.tachyon	256	NC	NC	NC	NC	NC	NC									
126.lammps	256	NC	NC	NC	NC	NC	NC									
127.wrf2	256	NC	NC	NC	NC	NC	NC									
128.GAPgeofem	256	NC	NC	NC	NC	NC	NC									
129.tera_tf	256	NC	NC	NC	NC	NC	NC									
130.socorro	256	NC	NC	NC	NC	NC	NC									
132.zeusmp2	256	NC	NC	NC	NC	NC	NC									
137.lu	256	NC	NC	NC	NC	NC	NC									

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Hardware Summary

Type of System: Homogeneous
Compute Node: iDP node
Interconnect: Gigabit Ethernet
Switch
Total Compute Nodes: 32
Total Chips: 64
Total Ranks: 256
Total Threads: 256
Total Memory: 1 TB
Base Ranks per Node: 256
Minimum Peak Ranks: --
Maximum Peak Ranks: --

Software Summary

C Compiler: Intel C++ Compiler 10.1 for Linux (10.1.013)
C++ Compiler: Intel C++ Compiler 10.1 for Linux (10.1.013)
Fortran Compiler: Intel Fortran Compiler 10.1 for Linux (10.1.013)
Base Pointers: 64-bit
Peak Pointers: 64-bit
MPI Library: OpenMPI 1.3.1
Other MPI Info: None
Pre-processors: No
Other Software: None



SPEC MPIM2007 Result

Copyright 2006-2010 Standard Performance Evaluation Corporation

IBM

iDP (Intel Xeon L5420, 2.50 GHz)

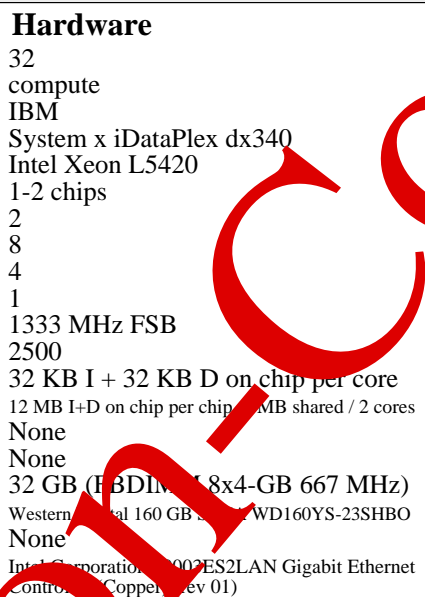
SPECmpiM_peak2007 = Not Available

SPECmpiM_base2007 = Not Available

MPI2007 license: 45
Test sponsor: Indiana University
Tested by: Scott Teige

Test date: Apr-2009
Hardware Availability: Sep-2008
Software Availability: Jan-2009

Node Description: iDP node



Hardware	
Number of nodes:	32
Uses of the node:	compute
Vendor:	IBM
Model:	System x iDataPlex dx340
CPU Name:	Intel Xeon L5420
CPU(s) orderable:	1-2 chips
Chips enabled:	2
Cores enabled:	8
Cores per chip:	4
Threads per core:	1
CPU Characteristics:	1333 MHz FSB
CPU MHz:	2500
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	12 MB I+D on chip per chip, 1 MB shared / 2 cores
L3 Cache:	None
Other Cache:	None
Memory:	32 GB (FBDIMM 8x4-GB 667 MHz)
Disk Subsystem:	Western Digital 160 GB SATA WD160YS-23SHBO
Other Hardware:	None
Adapter:	Intel Corporation 80003ES2LAN Gigabit Ethernet Controller (Copper) (rev 01)
Number of Adapters:	2
Slot Type:	--
Data Rate:	Gigabit Ethernet
Ports Used:	1
Interconnect Type:	Ethernet
Adapter:	Mellanox Technologies MT26418 [ConnectX IB DDR, PCIe 2.0 5GT/s] (rev a0)
Number of Adapters:	1
Slot Type:	PCIe x8 Gen2
Data Rate:	InfiniBand 4x DDR
Ports Used:	1
Interconnect Type:	InfiniBand

Software	
Adapter:	Intel Corporation 80003ES2LAN Gigabit Ethernet Controller (Copper) (rev 01)
Adapter Driver:	OS default (e1000, v7.3.20-k2-NAPI)
Adapter Firmware:	2.4-0
Adapter:	Mellanox Technologies MT26418 [ConnectX IB DDR, PCIe 2.0 5GT/s] (rev a0)
Adapter Driver:	OFED 1.3.1
Adapter Firmware:	2.5.0
Operating System:	RedHat EL v4.7 2.6.9-67.0.22.EL_lustre.1.6.7custom
Local File System:	Linux/ext3
Shared File System:	IBM N5500 NAS via NFSv3
System State:	Multi-User
Other Software:	lustre 1.6.7 kernel patches



SPEC MPIM2007 Result

Copyright 2006-2010 Standard Performance Evaluation Corporation

IBM

SPECmpiM_peak2007 = Not Available

iDP (Intel Xeon L5420, 2.50 GHz)

SPECmpiM_base2007 = Not Available

MPI2007 license: 45
Test sponsor: Indiana University
Tested by: Scott Teige

Test date: Apr-2009
Hardware Availability: Sep-2008
Software Availability: Jan-2009

Interconnect Description: Gigabit Ethernet

Hardware	Software
Vendor: ProCurve Networking	
Model: HP ProCurve Switch 5406zl Intelligent Edge J8697A	
Switch Model: HP ProCurve Switch 5406zl Intelligent Edge J8697A	
Number of Switches: 1	
Number of Ports: 144	
Data Rate: 1Gbps Ethernet	
Firmware: --	
Topology: Single switch	
Primary Use: Cluster File System	

Interconnect Description: IB Switch

Hardware	Software
Vendor: Cisco	
Model: Cisco SFS 7024	
Switch Model: Cisco SFS 7024D	
Number of Switches: 1	
Number of Ports: 200	
Data Rate: InfiniBand 4x DDR	
Firmware: 4.1.1.1.1	
Topology: Single switch	
Primary Use: MPI traffic	

Submit Notes

The config file option 'submit' was used.

Base Compiler Invocation

C benchmarks:
mpicc

Continued on next page



SPEC MPIM2007 Result

Copyright 2006-2010 Standard Performance Evaluation Corporation

IBM

SPECmpiM_peak2007 = Not Run

iDP (Intel Xeon L5420, 2.50 GHz)

SPECmpiM_base2007 = NC

MPI2007 license: 45

Test sponsor: Indiana University

Tested by: Scott Teige

Test date: Apr-2009

Hardware Availability: Sep-2008

Software Availability: Jan-2009

Base Compiler Invocation (Continued)

C++ benchmarks:

126.lammps: mpicxx

Fortran benchmarks:

mpif90

Benchmarks using both Fortran and C:

mpicc mpif90

Base Portability Flags

121.pop2: -DSPEC_MPI_CASE_FLAG
126.lammps: -DMPICH_IGNORE_CXX_SEEK
127.wrf2: -DSPEC_MPI_LINUX -DSPEC_MPI_CASE_FLAG

Base Optimization Flags

C benchmarks:

-O3 -xT -ipo -no-prec-div

C++ benchmarks:

126.lammps: -O3 -xT -ipo -no-prec-div

Fortran benchmarks:

-O3 -xT -ipo -no-prec-div

Benchmarks using both Fortran and C:

-O3 -xT -ipo -no-prec-div



SPEC MPIM2007 Result

Copyright 2006-2010 Standard Performance Evaluation Corporation

IBM

SPECmpiM_peak2007 = Not Available

iDP (Intel Xeon L5420, 2.50 GHz)

SPECmpiM_base2007 = Not Available

MPI2007 license: 45
Test sponsor: Indiana University
Tested by: Scott Teige

Test date: Apr-2009
Hardware Availability: Sep-2008
Software Availability: Jan-2009

The flags file that was used to format this result can be browsed at
http://www.spec.org/mpi2007/flags/EM64T_Intel101_flags.20090520.00.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/mpi2007/flags/EM64T_Intel101_flags.20090520.00.xml

SPEC and SPEC MPI are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC MPI2007 v1.1.
Report generated on Tue Jul 22 13:36:51 2014 by SPEC MPI2007 PS/PDF formatter v1463.
Originally published on 20 May 2009.