## SPEC OMPG2012 Result

### Megware

(Test Sponsor: Technische Universitaet Dresden)

**SuperMicro A+ Server 1042G-LTF**

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### Hardware

- **CPU Name:** AMD Opteron 6274
- **CPU Characteristics:** AMD Turbo CORE technology up to 3.10 GHz
- **CPU MHz:** 2200
- **CPU MHz Maximum:** 3100
- **FPU:** Integrated
- **CPU(s) enabled:** 64 cores, 4 chips, 16 cores/chip
- **CPU(s) orderable:** 2,4 chips
- **Primary Cache:** 512 KB I on chip per chip, 64 KB I shared / 2 cores; 16 KB D on chip per core
- **Secondary Cache:** 16 MB I+D on chip per chip, 2 MB shared / 2 cores
- **L3 Cache:** 16 MB I+D on chip per chip, 8 MB shared / 8 cores
- **Other Cache:** None
- **Memory:** 64 GB (16 x 4 GB PC3-12800R, ECC)
- **Disk Subsystem:** 250 GB (1 x 250 GB SATA 7200 rpm)
- **Other Hardware:**

### Software

- **Operating System:** SUSE Linux Enterprise Server 11 SP2
- **Kernel:** 3.0.26-0.7-default
- **Compiler:** C/C++/Fortran: Version 12.9 of the PGI Compilers
- **Auto Parallel:** No
- **File System:** ext3
- **System State:** run-level 3
- **Base Pointers:** 64-bit
- **Peak Pointers:** Not Applicable
- **Other Software:** None

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info@spec.org

http://www.spec.org/
**SPEC OMPG2012 Result**

**Megware**  
(Test Sponsor: Technische Universität Dresden)

**SuperMicro A+ Server 1042G-LTF**  

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

**Platform Notes**

Sysinfo program /tmp/OMP2012-021/Docs/sysinfo  
$Rev: 395$ $Date:: 2012-07-25#$ 8f8c0fe9e19c658963a1e67685e50647  
running on n009 Fri Sep 28 10:55:30 2012

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see: http://www.spec.org/omp2012/Docs/config.html#sysinfo

From /proc/cpuinfo  
model name : AMD Opteron(TM) Processor 6274  
4 "physical id"s (chips)  
64 "processors"  
cores, siblings (Caution: counting these is hw and system dependent. The following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)  
cpu cores : 8  
siblings : 16  
physical 0: cores 0 1 2 3 4 5 6 7  
physical 1: cores 0 1 2 3 4 5 6 7  
physical 2: cores 0 1 2 3 4 5 6 7  
physical 3: cores 0 1 2 3 4 5 6 7

Continued on next page
Platform Notes (Continued)

    cache size : 2048 KB

From /proc/meminfo
    MemTotal:       66100476 kB
    HugePages_Total:       0
    Hugepagesize:       2048 kB

From /etc/*release*/etc/*version*
    SUSE-release:
        SUSE Linux Enterprise Server 11 (x86_64)
        VERSION = 11
        PATCHLEVEL = 2

    hpc-release:
        "Platform HPC" 3.0 (build 5890)

    kusu-release: Kusu "Orange Fiddler" 2.1 (build 5871)

    mpichversion.c:
        /* -*- Mode: C; c-basic-offset:4 ; -*- */
        /*
        * (C) 2004 by Argonne National Laboratory.
        *      See COPYRIGHT in top-level directory.
        */
        
        #include "mpi.h"
        #include <stdio.h>

    uname -a:
        Linux n009 3.0.26-0.7-default #1 SMP Tue Apr 17 10:27:57 UTC 2012 (3829766)
        x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Sep 17 15:30 last=S

SPEC is set to: /tmp/OMP2012-021
    Filesystem     Type  Size  Used Avail Use% Mounted on
    /dev/sda6      ext3  180G  5.1G  166G   3% /tmp

Cannot run dmidecode; consider saying 'chmod +s /usr/sbin/dmidecode'

(End of data from sysinfo program)

General Notes

Environment:
    OMP_NESTED=FALSE
    OMP_DYNAMIC=FALSE
    OMP_STACKSIZE=64M
    MP_BIND=YES
    MPSTKZ=64M

System settings:
    AMD HT Assist enabled, effective L3 size reduced from 16 MB
    per processor to 12 MB, 4 MB used as probe filter
**Base Compiler Invocation**

C benchmarks:  
pgcc

C++ benchmarks:  
pgcpp

Fortran benchmarks:  
pgf90

**Base Portability Flags**

350.md: -Mfree

**Base Optimization Flags**

C benchmarks:  
-mp -fast -Mvect=simd:256 -Msmartalloc=huge -mcmodel=medium

C++ benchmarks:  
-mp -fast -Mvect=simd:256 -Msmartalloc=huge -mcmodel=medium

Fortran benchmarks:  
-mp -fast -Mvect=simd:256 -Msmartalloc=huge -mcmodel=medium

The flags file that was used to format this result can be browsed at  

You can also download the XML flags source by saving the following link:  
http://www.spec.org/omp2012/flags/pgi129_linux_flags.xml