SPECweb99 Result

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Hewlett-Packard Company: Compaq Proliant DL380 G2
Red Hat: Red Hat Content Accelerator 2

SPECweb99 = 3649

Test Date: Aug-2002
Tester: Hewlett-Packard Company

Hardware Avail:	Sep-2002	OS Avail:	Jun-2001	HTTP Software Avail:	Jun-2001	Sup. Software Avail:	Jun-2001	SPEC license #:	3

Hardware

Vendor:	Hewlett-Packard Company
Model:	Compaq Proliant DL380 G2
Processor:	1400MHz Intel Pentium III
# Processors:	2 cores, 2 chips, 1 core/chip
Primary Cache:	16KBI+16KBD on chip
Secondary Cache:	512KB
Other Cache:	None
Memory:	6 GB
Disk Subsystem:	6x18GB 15K RPM SCSI
Disk Controllers:	Compaq Smart Array 5i Plus with Battery-Backed Write Cache
Other Hardware:	Anritsu MultiFlow 5128 Switch

Software

Operating System:	Red Hat Linux 7.2
File System:	ext2
Other Software:	Broadcom 2.2.23 driver

HTTP Software

Vendor:	Red Hat
HTTP Software:	Red Hat Content Accelerator 2
API:	RHCA API
Server Cache:	None
Log Mode:	Binary CLF

Test Sponsor

Test Date:	Aug-2002
Tested By:	Hewlett-Packard Company
SPEC License:	3

Network

# of Controllers:	2
Network Controllers:	Compaq NC7771 1000TX
# of Nets:	2
Type of Nets:	Gigabit Ethernet
Network Speed:	1 Gb/s
MSL (sec):	30 (Non RFC1122)
Time-Wait (sec):	60 (Non RFC1122)
MTU:	1500

Clients

# of Clients:	10
Model:	Compaq Proliant DL380
Processor:	1.0GHz Intel Pentium III
# of Processors:	2
Memory:	128MB
Network Controller:	Alteon ACENIC 1000SX
Operating System:	Red Hat 7.3
Compiler:	gcc 2.96

Notes/Tuning Information

SUT Notes

2 disks Hardware RAID0 for OS and logs
4 disks Hardware RAID0 for fileset

Operating System Notes

Tuning parameters:
ulimit -n 10000, set number of open files to 10000, default 8192
net.core.optmem_max=10000000, maximum amount of option memory buffers, default 10240
net.core.rmem_default=10000000, default receive socket buffer size, default 65535
net.core.rmem_max=10000000, maximum receive socket buffer size, default 131071
net.core.wmem_default=10000000, default send socket buffer size, default 65535
net.core.wmem_max=10000000, maximum send socket buffer size, default 131071
net.core.hot_list_length=300000, maximm number of skb-heads to be cached, default 128
net.core.netdev_max_backlog=300000, number of unprocessed input packets before kernel starts dropping them, default 300
net.ipv4.tcp_max_tw_buckets=2000000, set TCP time-wait buckets pool size, default 180000
net.ipv4.tcp_rmem=30000000 30000000 30000000, maximum TCP read-buffer space allocatable, default 4096 87380 174760
net.ipv4.tcp_wmem=30000000 30000000 30000000, maximum TCP write-buffer space allocatable, default 4096 16384 131072
net.ipv4.tcp_mem=30000000 30000000 30000000, maximum TCP buffer space allocatable, default 195584 196096 196608
net.ipv4.tcp_timestamps=0, turns TCP timestamp support off, default on
net.ipv4.nonlocal_bind = 1, allows processes to bind to non-local IP adresses.
net.ipv4.tcp_sack = 0, turn SACK support off, default on.
net.ipv4.tcp_window_scaling = 0, turn TCP window scaling support off, default on.

HTTP Software Notes

net.tux.cgiroot=/, cgi root check; default /var/www/tux/cgiroot/
net.tux.cgi_uid=99, userid for cgi scripts; default -1
net.tux.cgi_gid=99, groupid for cgi scripts; default -1

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Notes/Tuning Information (Continued)

HTTP Software Notes (Continued)

net.tux.mode_allowed=255, allowed file permission bits, default 4
net.tux.mode_forbidden=2, forbidden file permission bits, default 0
net.tux.documentroot=/web, document root for web server, default /var/www/tux
net.tux.logging=1, enable logging, default off
net.tux.0.listen.0=836564ca, tie NIC to first TUX thread, default 0
net.tux.1.listen.0=836764ca, tie NIC to second TUX thread, default 0

Network Notes

txqueuelen=20000, transmit queue length, default 100
irq.15.smp_affinity=01, lock IRQ of NIC to first processor, default 0xffffffff
irq.11.smp_affinity=02, lock IRQ of NIC to second processor, default 0xffffffff
tx_pkt_desc_cnt=35, Number of transmit descriptors, default 100
rx_std_desc_cnt=45, Number of receive descriptors for frames, default 200
Clients port range set to:net.ipv4.ip_local_port_range = 1024 65535, default 1024 4999

Other Notes

Tuning Disclosure: See Above
Dynamic API and Config: HPHouston-20020805-dl380G2.tar.gz