SPECsfs97 Result

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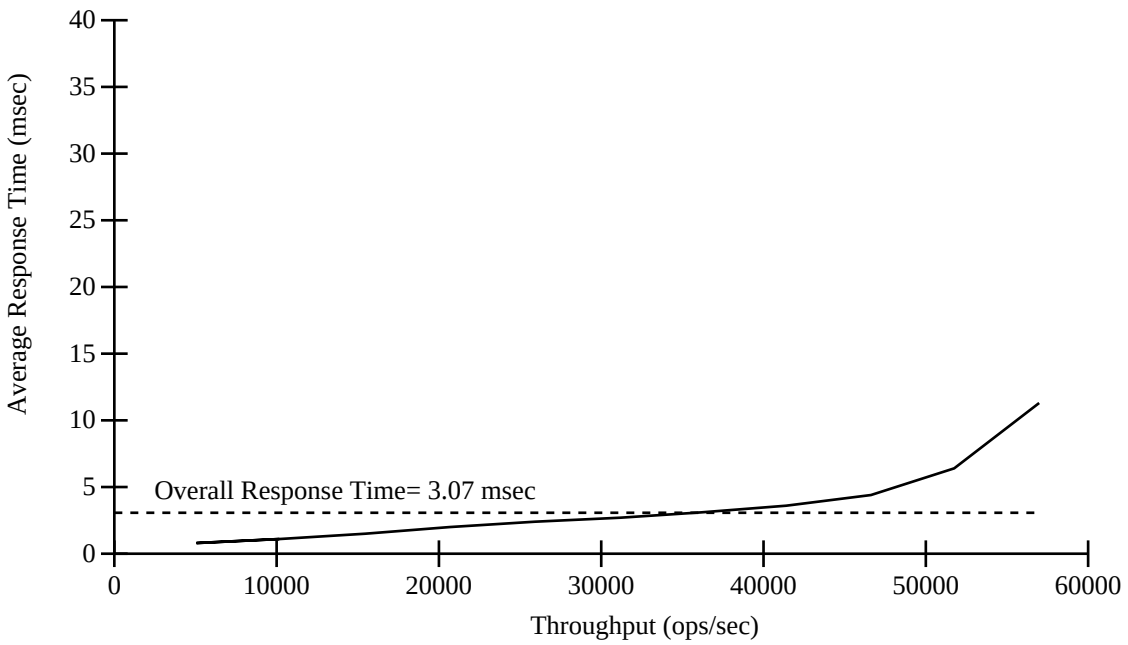
Hewlett Packard rp7410

SPECsfs97_R1.v2 =

56983 Ops/Sec (Overall Response Time = 3.07 msec)

Tested:	March 2002	By:	Hewlett Packard	License #:	3	Hardware Avail:	March 2002	Software Avail:	March 2002

Throughput (ops/sec)	Average Response (msec)
5063	0.8
10167	1.1
15462	1.5
20681	2.0
25917	2.4
31181	2.7
36158	3.1
41397	3.6
46620	4.4
51748	6.4
56983	**11.3**



CPU, Memory and Power

Model Name:	rp7410
Processor:	PA-8700 @ 750 Mhz
# of Processors:	8
Primary Cache:	768 KB Inst, 1.5 MB data
Secondary Cache:	N/A
Other Cache:	N/A
UPS:	N/A
Other Hardware:	3 Brocade fc Silkworm 3800
Memory Size:	16 GB
NVRAM Size:	9 GB (1 GB / VA7400)
NVRAM Type:	VA7400
NVRAM Description:	Built into VA7400

Server Software

OS Name and Version:	HP-UX 11.11
Other Software:	N/A
File System:	JFS
NFS version:	2

Network Subsystem

Network Type:	HP A4926A 1000Base-SX
Network Controller Desc.:	Gigabit Adapter
Number Networks:	6
Number Network Controllers:	6
Protocol Type:	UDP
Switch Type:	HP Procurve 4000M
Bridge Type:	N/A
Hub Type:	N/A
Other Network Hardware:	N/A

Server Tuning

Buffer Cache Size:	Dynamic with ceiling at 42 percent
# NFS Processes:	432
Fileset Size:	544.5 GB

Disk Subsystem

Number Disk Controllers:	10
Number of Disks:	379
Number of Filesystems:	144
File System Creation Ops:	mkfs -F vxfs -o logsize=2048,bs=8k
File System Config:	N/A
Disk Controller:	SCSI Ultra160 LVD A6793A
# of Controller Type:	1
Number of Disks:	1
Disk Type:	Seagate 18.2G Model ST318404LC
File Systems on Disks:	os, swap, dump
Special Config Notes:	N/A
Disk Controller:	HP Fibre Channel adaptor A6795A
# of Controller Type:	9
Number of Disks:	42
Disk Type:	36 GB, FC, 15K RPM (A6193A)
File Systems on Disks:	F1,F10,F19...F136 / F2,F11,F20..F137...
Special Config Notes:	See notes below.

For More Information contact

SPEC

info@spec.org
http://www.spec.org/

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Load Generator (LG) Configuration

Number of Load Generators:	48
Number of Processes per LG:	18
Biod Max Read Setting:	2
Biod Max Write Setting:	2
LG Type:	A-Class
LG Model:	A-180C
Number and Type Processors:	PA-7300LC @ 180 MHz
Memory Size:	256 MB
Operating System:	HP-UX 11.11
Compiler:	SPEC CD binaries. (Vers: HP92453-01 A.11.01.00 HP C Compiler)
Compiler Options:	SPEC CD defaults.
Network Type:	HP A4926A 1000Base-SX

Testbed Configuration

LG #	LG Type	Network	Target File Systems	Notes
1..8	LG1	N1	F1,F2..F18/F19,F20..F37/..F127,F128..F144	8 clients/net
9..16	LG1	N2	F1,F2..F18/F19,F20..F37/..F127,F128..F144	8 clients/net
17..24	LG1	N3	F1,F2..F18/F19,F20..F37/..F127,F128..F144	8 clients/net
25..32	LG1	N4	F1,F2..F18/F19,F20..F37/..F127,F128..F144	8 clients/net
33..40	LG1	N5	F1,F2..F18/F19,F20..F37/..F127,F128..F144	8 clients/net
41..48	LG1	N6	F1,F2..F18/F19,F20..F37/..F127,F128..F144	8 clients/net

Notes/Tuning Information

Other Notes
-Configuration notes.
-.. Server is an rp7410 and contains:
-.. 8cpus, 16GB ram, 9 FC controllers, 6 Gigabit NICs
-.. Server has 9 fibre channel controllers. Three go
-.. to each FC switch. There are 3 FC switches.
-.. Each VA7400 has 2 FC ports attached to the same switch.
-.. There are 3 VA7400s connected to each FC switch.
-.. Each VA7400 contains: 42 disks, 1024 MB NVRAM. Both FC ports in use.
-.. VA7400s are using RAID 0/1. Disk scrubbing is disabled.
-.. Each VA7400 has 16 LUNs. LUNs 1,2..8 are striped across 21 disks.
-.. LUNs 9,10..16 are striped across the other 21 disks.
-System tuneables.
-.. bufcache_hash_locks=4096, dbc_min_pct=10
-.. dbc_max_pct=42, dnlc_hash_locks=4096, scsi_max_qdepth=90
-.. ftable_hash_locks=4096, max_thread_proc=1000
-.. maxswapchunks=16384, ncsize=2100000, nfile=16384
-.. ninode=2100000, nkthread=10000
-.. nstrpty=200, vnode_hash_locks=4096
-.. vps_pagesize=4k,max_fcp_reqs=1024
-.. vx_fancyra_enable=1, create_fastlinks=1, vx_ninode=2100000
-.. All Fibre channels are in 1 Gbit mode.
-Filesystem tunes:
-.. max_buf_data_size=8192,read_nstream=1,write_nstream=100,max_diskq=104857600